AGENDA
MCFARLAND CITY COUNCIL
MCFARLAND SUCCESSOR AGENCY
MCFARLAND PUBLIC FINANCE AUTHORITY
MCFARLAND IMPROVEMENT AUTHORITY
MCFARLAND PARKING AUTHORITY
MCFARLAND USA FOUNDATION

REGULAR MEETING
CITY COUNCIL CHAMBERS **April 14, 2022**
103 W. SHERWOOD AVE, MCFARLAND, CA **6:00 PM**

In Person Meeting

How to submit public comments:
The meetings of the City Council and all municipal entities, commissions, and boards ("the City") are open to the public. At regularly scheduled meetings, members of the public may address the city on any item listed on the agenda, or on any non-listed matter over which the city has jurisdiction. At special or emergency meetings, members of the public may only address the city on items listed on the agenda. There is a time limitation of two minutes per person. For any item that is not on the agenda and within the jurisdiction or interest of the city, please come to the podium at this time. The Brown Act does not permit any action or discussion on items not listed on the agenda. If you wish to speak regarding a scheduled agenda item, please come to the podium when the item number and subject matter are announced, and the mayor opens Public Comment on the item. When recognized, please begin by providing your name and address for the record (optional). Anyone wishing to submit written information at the meeting needs to furnish ten (10) copies to the City Clerk in advance to allow for distribution to City Council, staff, and the media. Willful disruption of the meeting shall not be permitted. If the Mayor finds that there is in fact willful disruption of any City Council Meeting, he/she may order the disrupting parties out of the room and subsequently conduct the City's business without them present.

Americans with Disabilities Act:
In compliance with the ADA, if you need special assistance to participate in a city meeting or other services offered by the City, please contact the City Clerk's office, at (661) 792-3091 ext. 2135. Notification of at least 48 hours prior to the meeting, or time when services are needed, will assist the city staff in assuring those reasonable arrangements can be made to provide accessibility to the meeting or services.

CALL TO ORDER: Mayor Sally Tafoya

ROLL CALL:
Mayor, Sally Tafoya
Mayor Pro Tem, María T. Pérez
Council Member/Board Member, Saul Ayon
Council Member/Board Member, Ricardo Cano
Council Member/ Board Member, Amador Ayon

INVOCATION

PLEDGE OF ALLEGIANCE

PRESENTATIONS, INTRODUCTIONS AND AWARDS

- Proclamation Honoring the Month of April as "Donate Life California Month"

- Development of the 2022 Regional Transportation Plan/Sustainable Communities Strategy, Key Land Use and Planning Assumptions and Public Outreach. Rob Ball, Director of Planning – Kern Council of Governments

- Assemblyman Rudy Salas

  -AB 2062 - Local Police Grant

  -AB 2489 - Incentive Pay for Teachers

  -AB 1941 - State Supplemental Payments for Seniors

PUBLIC COMMENT: The public may address the Council/Board Member on items, which do not appear on the agenda. Council/Board Members may respond briefly to statements made or questions posed. They may ask a question for clarification; may refer the item to staff for further study or for placement on a future agenda. **Speakers are limited to two minutes for each person. Please state your name and address for the record prior to making a presentation. Fifteen minutes total will be allowed for any one subject.**

CONSENT AGENDA: The Consent Agenda consists of items that in staff's opinion are routine and non-controversial. These items are approved in one motion unless a Council Member/Board Member removes a particular item.

1. Approval of Expense Report in the Amount of ***$215,251.05*** from March 16, 2022, to April 5, 2022.
2. Approval of Payroll Report in the Amount of ***$216,001.90*** for March 2022.
3. Approval of February 10, 2022 Regular Meeting Minutes.
4. Approval of March 24, 2022 Regular Meeting Minutes.

PUBLIC HEARINGS:

5. It is recommended that the City Council Conduct a Public Hearing to Receive Input Regarding the Consideration and Adoption of a Resolution of McFarland Urban Water Management Plan.

   a. Open Public Hearing and Receive Public Testimony:
      Close Public Hearing:

   b. Motion to Adopt ***Resolution No. 2022-0019,*** A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING A RESOLUTION ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN.

6. Proposed ***Ordinance No. 0004-2022*** AN ORDINANCE OF THE CITY OF MCFARLAND AMENDING TITLE 17, CHAPTER 17.152 TO ADD SECTIONS 17.152.040 MODIFICATION OF CONDITIONAL USE PERMITS and 17.152.050 REVOCATION/SUSPENSION OF CONDITIONAL USE PERMITS TO THE MCFARLAND MUNICIPAL CODE.

   a. Open the Public Hearing and Receive Public Testimony;

   b. Waive the Reading of the Ordinance Text in Its Entirety, Read by Title Only, and Introduce for Reading, ***Ordinance No.0004-2022***, AN ORDINANCE OF THE CITY OF MCFARLAND AMENDING TITLE 17, CHAPTER 17.152 TO ADD SECTIONS 17.152.040 MODIFICATION OF CONDITIONAL USE PERMITS and 17.152.050 REVOCATION/SUSPENSION OF CONDITIONAL USE PERMITS TO THE MCFARLAND MUNICIPAL CODE.

   c. Direct Staff to Schedule Second Reading and Adoption of ***Ordinance No. 0004-2022*** For the April 28, 2022 Regular City Council Meeting.

ADMINISTRATIVE AGENDA

7. Report, Discuss, and Possible Approval of ***Resolution No. 2022- 0020***, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING AN ADDITIONAL ALLOCATION OF FUNDS FROM THE GENERAL FUND FOR THE FUNDING OF ROAD EXPANSION INFRONT OF CITY PROPERTY ELMO SUMP.

8. Report, Discuss, and Possible Approval of ***Resolution No. 2022-0026,*** A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING DEVELOPMENT IMPACT FEE CREDIT AGREEMENT FOR ELMO HWY MEDICAL PLAZA.

9. Report, Discuss, and Possible Approval of ***Resolution No. 2022-0027,*** A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING EASEMENT AGREEMENT WITH SHAFTER MEDICAL PLAZA LLC.

10. Report, Discuss, and Possible Adoption of ***Resolution No. 2022- 2021***; AUTHORIZATION FOR THE EXECUTION OF THE CERTIFICATIONS AND ASSURANCES AND AUTHORIZED AGENT FORMS FOR THE LOW CARBON TRANSIT OPERATIONS PROGRAM (LCTOP) FOR THE FOLLOWING PROJECT(S): MCFARLAND TRANSIT STATION $34,450.00.

11. Report, Discuss, and Possible Approval of ***Resolution No. 2022- 0022***, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING THE DESIGNATION OF CITY OWNED LAND AS SURPLUS AND BEING SURPLUS LAND PROCESS.

12. Report, Discussion, and Possible Approval of ***Resolution No. 2022-0023,*** A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING AN ADDITIONAL ALLOCATION OF FUNDS FROM ARPA FOR THE PURCHASE AND INSTALLATION OF NINE HD NETWORK CAMERAS WITHIN THE CITY OF MCFARLAND.

13. Report, Discussion, and Possible Approval of ***Resolution No. 2022-0024,*** A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING AN ADDITIONAL ALLOCATION OF FUNDS FROM ARPA FOR THE PURCHASE AND INSTALLATION OF A NEW DISPATCHER SWITCH.

14. Report, Discuss, and Authorize City Staff to Proceed with the Creation of a Cannabis Ordinance That Would Potentially Apply to the Current City limits and/or the LAFCO Approved Annexation Area.

15. Report, Discuss and Approve to Create a Cannabis Ordinance by Contractually Engaging Green Light who will Provide a Financial Deposit to Cover Costs of the Process for Something of Comparable Value. Using Approach 2, Identified in this Staff Report.

16. Report, Discuss and Possible Approval of Mr. Charles Baldwin's Employment Agreement as the New Finance Director for the City of McFarland.

17. Report, Discuss and Possibly Approve ***Resolution No. 2022- 0025***, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING JOB DESCRIPTION CREATION OF PAYROLL CLERK IN THE FINANCE DEPARTMENT.

REPORTS FROM CITY COUNCIL ON COMMITTEE/SPECIAL DISTRICT MEETINGS

a. Delano Mosquito Abatement District (DMAD) – Ricardo Cano
b. Kern Council of Governments (KCOG)- Mayor Tafoya or Mayor Pro-Tem Pérez
c. Kern Economic Development Corp. (KEDC) – Mayor Tafoya or Mayor Pro-Tem Pérez
d. Kern County Association of Cities (KCAC)
e. Poso Creek (IRWMP)- Councilmember Ayon
f. Ken Local Agency Formation Commission (LAFCO) – Councilmember Ayon

COUNCIL STATEMENTS AND REPORTS

On their own initiative, Council Members may make a brief announcement or a brief report on their own activities. In addition, Council Members may ask a question of staff or the public for clarification on any matter, provide a reference to staff or other resources for information. Alternatively, request staff to report to the City Council at a later meeting concerning any matter. Furthermore, the City Council, or any member thereof, may take action to direct staff to place a matter of business on a future agenda.

CLOSED SESSION

1. Conference with Legal Counsel – Anticipated Litigation: Significant exposure to litigation pursuant to § 54956.9(b): One Case

ADJOURNMENT

This is to certify this agenda was posted at McFarland City Hall on **April 11, 2022.**

Francisca Alvarado

Francisca Alvarado, City Clerk

Peter Cosentini, Assistant City Manager

Kenneth Williams, Interim City Manager

Next Meeting: Regular City Council **April 28, 2022.**

The City of McFarland does not discriminate based on disability and complies with the provisions of the Americans with Disabilities Act (ADA). If you need special assistance to participate in this meeting, please contact the City Clerk's Office at (661) 792-3091 at least 48 hours prior to the meeting to make reasonable arrangements to ensure accessibility to this meeting.

DMV/DONATE LIFE CALIFORNIA MONTH PROCLAMATION

City of McFarland, April 2022

WHEREAS, organ, tissue, marrow and blood donation are life-giving acts recognized worldwide as expressions of compassion to those in need;

WHEREAS, more than 106,000 individuals nationwide and more than 20,000 in California are currently on the national organ transplant waiting list, and on average, 17 people die each day waiting;

WHEREAS, the need for donated organs is especially urgent in Hispanic, Latino, and African American communities;

WHEREAS, a single individual's donation of the heart, lungs, liver, kidneys, pancreas and small intestine can save up to eight lives;

WHEREAS, donation of tissue can save and heal the lives of more than 75 others;

WHEREAS, organ donors saved more than 40,000 lives last year, the most ever;

WHEREAS, any person can register to be an organ, eye and tissue donor regardless of age or medical conditions;

WHEREAS, being a registered donor does not impact the quality of life-saving medical care a person receives in an emergency;

WHEREAS, California residents can sign up with the Donate Life California Donor Registry online at any time by visiting www.donateLIFEcalifornia.org or, for Spanish-speakers, www.doneVIDAcalifornia.org

WHEREAS, California residents can sign up to be an organ, eye and tissue donor when applying for or renewing their driver's licenses or ID cards at the California Department of Motor Vehicles;

WHEREAS, California residents interested in saving a life through living kidney donation may visit www.LivingDonationCalifornia.org;

NOW, THEREFORE, BE IT RESOLVED that in recognition of National Donate Life Month, the month of April 2022 is hereby proclaimed "DMV/Donate Life Month" in the City of McFarland, and in doing so we encourage all Californians to check "YES!" online, or when applying for or renewing their driver's license or I.D. card at the DMV.



Sally Tafoya, Mayor
City of McFarland

City of McFarland, CA

Expense Approval Report

By Vendor Name

Post Dates 3/16/2022 - 4/5/2022

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Vendor: AAA Services - AAA Services					
AAA Services	152825	04/04/2022	INV 152825 AAA Fire Service	01-185-56400-0000-1	284.34
				Vendor AAA Services - AAA Services Total:	**284.34**
Vendor: Advanced Data Storag - Advanced Data Storage, Inc.					
Advanced Data Storage, Inc.	143317	04/04/2022	Inv. 143317 02/18/22	01-150-52200-0000-1	41.40
Advanced Data Storage, Inc.	143892	04/04/2022	Inv 143892	01-130-52200-0000-1	41.40
Advanced Data Storage, Inc.	145372	04/04/2022	Inv. 145372 03/12/22	01-150-52200-0000-1	41.40
				Vendor Advanced Data Storag - Advanced Data Storage, Inc. Total:	**124.20**
Vendor: At&t Mobility - At&t Mobility					
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	01-105-57800-0000-1	208.41
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	01-105-57800-0000-1	230.60
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	01-110-57800-0000-1	52.27
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	01-110-57800-0000-1	74.71
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	01-115-57800-0000-1	49.02
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	01-115-57800-0000-1	71.43
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	01-140-57800-0000-1	41.64
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	01-140-57800-0000-1	49.56
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	01-155-57800-0000-1	41.64
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	01-155-57800-0000-1	49.56
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	01-160-57800-0000-1	88.00
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	01-160-57800-0000-1	80.08
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	01-165-57800-0000-1	49.56
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	01-165-57800-0000-1	41.64
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	01-175-57800-0000-1	49.56
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	01-175-57800-0000-1	41.64
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	20-200-57800-0000-1	19.94
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	20-200-57800-0000-1	42.56
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	30-500-57800-0000-1	105.17
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	30-500-57800-0000-1	127.54
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	31-505-57800-0000-1	25.90
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	31-505-57800-0000-1	48.34
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X02112022	32-510-57800-0000-1	89.74
At&t Mobility	287237972024X02112022	04/04/2022	Inv 287237972024X03112022	32-510-57800-0000-1	112.13
At&t Mobility	287265953941X03062022	04/04/2022	Inv 287265953941X03062022	01-165-57800-0000-1	111.21
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	01-180-57800-0000-1	44.07
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	01-180-57800-0000-1	44.07
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	20-200-57800-0000-1	8.81
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	20-200-57800-0000-1	8.81
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	30-500-57800-0000-1	105.76
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	30-500-57800-0000-1	105.76
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	32-510-57800-0000-1	105.76
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	32-510-57800-0000-1	105.76
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	34-520-57800-0000-1	44.09
At&t Mobility	INV0021019	04/04/2022	Acct# 287304246558 Inv 28730...	34-520-57800-0000-1	44.09
				Vendor At&t Mobility - At&t Mobility Total:	**2,518.83**
Vendor: Auto Zone - Auto Zone					
Auto Zone	627036847	04/04/2022	INV 6270362847 Duralast Socke...	20-200-57400-0000-1	18.06
Auto Zone	6270370739	04/04/2022	Inv. 6270370739 (03/14/2022)	01-150-56600-0000-1	156.88
				Vendor Auto Zone - Auto Zone Total:	**174.94**
Vendor: Bc Laboratories - Bc Laboratories					
Bc Laboratories	B390071	04/04/2022	INV B390071 Effluent/Influent ...	30-500-58200-0000-1	115.00
Bc Laboratories	B390273	04/04/2022	INV B390273 Bacteriological	32-510-58200-0000-1	195.00
Bc Laboratories	B390752	04/04/2022	INV B390752 Effluent/Influent	30-500-58200-0000-1	115.00

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Bc Laboratories	B390826	04/04/2022	INV B390826 Bacteriological	32-510-58200-0000-1	120.00
Bc Laboratories	B391079	04/04/2022	INV B391079 Effluent/Influent	30-500-58200-0000-1	95.00
Bc Laboratories	B391296	04/04/2022	INV B391296 Bacteriological	32-510-58200-0000-1	195.00
Bc Laboratories	B392085	04/04/2022	INV B392085 Bacteriological	32-510-58200-0000-1	120.00
Bc Laboratories	B397991	04/04/2022	INV B397991 Annual Source Wa...	30-500-58200-0000-1	199.00
Bc Laboratories	B398261	04/04/2022	INV B398261 Drinking Water M...	32-510-58200-0000-1	37.50
Bc Laboratories	B398650	04/04/2022	INV B398650 Bacteriological	32-510-58200-0000-1	195.00
Bc Laboratories	B399260	04/04/2022	INV BB399260 Annually 2020 W...	30-500-58200-0000-1	387.00
Bc Laboratories	B401166	04/04/2022	INV B401166 Bacteriological	32-510-58200-0000-1	116.00
Bc Laboratories	B402666	04/04/2022	INV B402666 Effluent/Influent	30-500-58200-0000-1	70.00
Bc Laboratories	B403055	04/04/2022	INV B403055 Bacteriological	32-510-58200-0000-1	80.00
Bc Laboratories	B404156	04/04/2022	INV B404156 Effluent/Influent	30-500-58200-0000-1	140.00
Bc Laboratories	B404199	04/04/2022	INV B404199 Effluent/Influent	30-500-58200-0000-1	95.00
Bc Laboratories	B405751	04/04/2022	INV B405751 Effluent/Influent	30-500-58200-0000-1	109.00
Bc Laboratories	B406868	04/04/2022	INV B406868 Bacteriological	32-510-58200-0000-1	80.00
Bc Laboratories	B408551	04/04/2022	INV B408551 Bacteriological	32-510-58200-0000-1	80.00
Bc Laboratories	B408552	04/04/2022	INV B408552 Bacteriological	32-510-58200-0000-1	80.00
Bc Laboratories	B409493	04/04/2022	INV B409493 Drinking Water -E...	32-510-58200-0000-1	1,170.00
Bc Laboratories	B409495	04/04/2022	INV B409495 Bacteriological	32-510-58200-0000-1	80.00
Bc Laboratories	B409555	04/04/2022	INV B409555 Drinking Water - ...	32-510-58200-0000-1	37.50
Bc Laboratories	B410697	04/04/2022	INV B410697 Bacteriological	32-510-58200-0000-1	80.00
Bc Laboratories	B410791	04/04/2022	INV B410791 1st Qrt 2021 Grou...	30-500-58200-0000-1	185.00
Bc Laboratories	B411471	04/04/2022	INV B411471 Effluent/Influent	30-500-58200-0000-1	95.00
Bc Laboratories	B412191	04/04/2022	INV B412191 Bacteriological	32-510-58200-0000-1	80.00
Bc Laboratories	B412864	04/04/2022	INV B412864 Effluent/Influent	30-500-58200-0000-1	95.00
Bc Laboratories	B422661	04/04/2022	INV B422661 Drinking Well - EDT	32-510-58200-0000-1	180.00
Bc Laboratories	B4322494	04/04/2022	INV B4322494 Effluent/Influent	30-500-58200-0000-1	150.00
				Vendor Bc Laboratories - Bc Laboratories Total:	**4,776.00**
Vendor: Berchtold Equipment - Berchtold Equipment					
Berchtold Equipment	P02904	04/04/2022	INV P02904 Mower Blade Riding..	20-200-57400-0000-1	81.19
				Vendor Berchtold Equipment - Berchtold Equipment Total:	**81.19**
Vendor: Best Digital Solutio - Best Digital Solutions, LLC					
Best Digital Solutions, LLC	1034	04/04/2022	Inv 1034 March 2022 Billing Pos...	30-500-52200-0000-1	212.45
Best Digital Solutions, LLC	1034	04/04/2022	Inv 1034 March 2022 Billing Pos...	30-500-55600-0000-1	505.05
Best Digital Solutions, LLC	1034	04/04/2022	Inv 1034 March 2022 Billing Pos...	31-505-52200-0000-1	212.44
Best Digital Solutions, LLC	1034	04/04/2022	Inv 1034 March 2022 Billing Pos...	31-505-55600-0000-1	505.04
Best Digital Solutions, LLC	1034	04/04/2022	Inv 1034 March 2022 Billing Pos...	32-510-52200-0000-1	212.45
Best Digital Solutions, LLC	1034	04/04/2022	Inv 1034 March 2022 Billing Pos...	32-510-55600-0000-1	505.05
				Vendor Best Digital Solutio - Best Digital Solutions, LLC Total:	**2,152.48**
Vendor: BHT Engineering, Inc - BHT Engineering, Inc.					
BHT Engineering, Inc.	22-051	04/04/2022	Countryside Gas - Inv No. 22-051	01-140-41400-8471-1	3,115.00
BHT Engineering, Inc.	22-052	04/04/2022	Tract 7393 - Inv No. 22-052	01-140-41400-8472-1	1,937.50
BHT Engineering, Inc.	22-066	04/04/2022	Tract 7214 - phase 5 & 6 - Inv N...	01-140-41400-8150-1	980.00
BHT Engineering, Inc.	22-067	04/04/2022	Sherwood Milestone Apartmen...	01-140-41400-8467-1	530.00
BHT Engineering, Inc.	22-082	04/04/2022	Capri Liquors ROW - Inv No. 22-...	01-140-56000-8469-1	480.00
				Vendor BHT Engineering, Inc - BHT Engineering, Inc. Total:	**7,042.50**
Vendor: Brenntag - Brenntag Pacific Inc.					
Brenntag Pacific Inc.	BPI1210478	04/01/2022	Garzoli Well Sulfuric Acid	32-510-57400-0000-1	2,265.86
Brenntag Pacific Inc.	BPI210035	04/01/2022	Garzoli Well Water Treatment	32-510-57400-0000-1	468.63
Brenntag Pacific Inc.	BPI210036	04/01/2022	Chemchlor Brownin Well	32-510-57400-0000-1	856.60
Brenntag Pacific Inc.	BPI210037	04/01/2022	Garzoli Well Chemchlor	32-510-57400-0000-1	235.56
Brenntag Pacific Inc.	BPI210038	04/01/2022	Well 6 Checmchlor	32-510-57400-0000-1	642.45
Brenntag Pacific Inc.	BPI211790	04/01/2022	Grazoli Well Chemchlor	32-510-57400-0000-1	1,473.61
Brenntag Pacific Inc.	BPI1224050	04/04/2022	INV BPI224050 Chemchlor SOD...	32-510-57400-0000-1	1,270.41
				Vendor Brenntag - Brenntag Pacific Inc. Total:	**7,213.12**
Vendor: Cannon - Cannon					
Cannon	78350	04/04/2022	City Sewer Improvement Stndrd...	01-140-55500-8510-1	2,355.25
Cannon	78351	04/04/2022	City Water Improvement Stndrd..	01-140-55500-8510-1	2,019.00
Cannon	78598	04/04/2022	Tract 7393 - Inv No. 78598	01-140-41400-8472-1	697.50

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Cannon	79583	04/04/2022	City Water Improvement Stndrd..	01-140-55500-8510-1	2,504.75
Cannon	79584	04/04/2022	City Sewer Improvement Stndrd...	01-140-55500-8510-1	10,970.00
				Vendor Cannon - Cannon Total:	**18,546.50**
Vendor: CenCal Auto & Truck - CenCal Auto & Truck Parts, Inc.					
CenCal Auto & Truck Parts, Inc.	804144	04/04/2022	INV 804144 Flap Discs 7	30-500-56410-0000-1	51.45
CenCal Auto & Truck Parts, Inc.	807788	04/04/2022	INV 807788 Battery	01-180-56600-0000-1	319.44
CenCal Auto & Truck Parts, Inc.	808126	04/04/2022	INV 808126 Fitting Hydraulic Ho...	32-510-56600-0000-1	23.10
CenCal Auto & Truck Parts, Inc.	809104	04/04/2022	INV 809104 Wiper Blade Exact F...	01-180-56500-0000-1	25.93
CenCal Auto & Truck Parts, Inc.	809139	04/04/2022	INV 809139 Chainsaw File	01-180-56500-0000-1	7.50
CenCal Auto & Truck Parts, Inc.	810520	04/04/2022	INV 810520 Exactfitblade Anti F...	30-500-56410-0000-1	122.61
				Vendor CenCal Auto & Truck - CenCal Auto & Truck Parts, Inc. Total:	**550.03**
Vendor: Cintas - Cintas Corporation No.3					
Cintas Corporation No.3	4057475870	04/04/2022	INV 4057475870 Cintas	01-180-51800-0000-1	44.53
Cintas Corporation No.3	4057475870	04/04/2022	INV 4057475870 Cintas	30-500-51800-0000-1	38.16
Cintas Corporation No.3	4057475870	04/04/2022	INV 4057475870 Cintas	32-510-51800-0000-1	14.59
Cintas Corporation No.3	4113194875	04/04/2022	INV 4113194875 Cintas	01-180-51800-0000-1	69.64
Cintas Corporation No.3	4113194875	04/04/2022	INV 4113194875 Cintas	30-500-51800-0000-1	59.69
Cintas Corporation No.3	4113194875	04/04/2022	INV 4113194875 Cintas	32-510-51800-0000-1	22.82
				Vendor Cintas - Cintas Corporation No.3 Total:	**249.43**
Vendor: Creative Financial - Creative Financial					
Creative Financial	122080231	04/04/2022	Inv 122080231	01-105-52200-0000-1	1,056.62
Creative Financial	122080231	04/04/2022	Inv 122080231	30-500-52200-0000-1	792.47
Creative Financial	122080231	04/04/2022	Inv 122080231	32-510-52200-0000-1	792.47
Creative Financial	122090230	04/04/2022	Inv 122090230	01-105-52200-0000-1	662.06
Creative Financial	122090230	04/04/2022	Inv 122090230	30-500-52200-0000-1	496.54
Creative Financial	122090230	04/04/2022	Inv 122090230	32-510-52200-0000-1	496.54
				Vendor Creative Financial - Creative Financial Total:	**4,296.70**
Vendor: CWI - CWI					
CWI	Y8-15803	04/04/2022	INV Y8-15803 PM Service Annua..	30-500-56600-0000-1	1,699.16
				Vendor CWI - CWI Total:	**1,699.16**
Vendor: De Lage Landen - De Lage Landen					
De Lage Landen	75360325	04/04/2022	Inv. 75360325 (02/06/22) Cont...	01-150-52200-0000-1	112.61
De Lage Landen	75360325	04/04/2022	Late Fee	01-150-52200-0000-1	5.64
De Lage Landen	75807362	04/04/2022	Inv. 75807362 (3/20/22) Contr...	01-150-52200-0000-1	149.08
De Lage Landen	75807362	04/04/2022	Late Fee	01-150-52200-0000-1	7.46
				Vendor De Lage Landen - De Lage Landen Total:	**274.79**
Vendor: Dee Jaspar - Dee Jaspar					
Dee Jaspar	22-02029	04/04/2022	Inv. No 22-02029 - Sherwood A...	01-140-41400-8467-1	292.50
Dee Jaspar	22-02031	04/04/2022	Inv No. 22-02031 - countryside ...	01-140-41400-8471-1	142.00
				Vendor Dee Jaspar - Dee Jaspar Total:	**434.50**
Vendor: Donald Williams - Donald Williams					
Donald Williams	INV0020992	04/04/2022	Reimbursement - Fuel (Covanta,..	01-150-54000-0000-1	57.07
				Vendor Donald Williams - Donald Williams Total:	**57.07**
Vendor: EDD - EDD					
EDD	CM0000287	04/05/2022	State Unemployment Insurance	30-22250-0000-1	-24.51
EDD	CM0000287	04/05/2022	State Unemployment Insurance	31-22250-0000-1	-24.08
EDD	CM0000287	04/05/2022	State Unemployment Insurance	32-22250-0000-1	-21.90
EDD	INV0021016	04/05/2022	State Income Tax Withholding	30-22200-0000-1	4.34
EDD	INV0021016	04/05/2022	State Income Tax Withholding	31-22200-0000-1	4.14
EDD	INV0021016	04/05/2022	State Income Tax Withholding	32-22200-0000-1	2.69
EDD	INV0021017	04/05/2022	SDI - State Disability Insurance	30-22200-0000-1	1.43
EDD	INV0021017	04/05/2022	SDI - State Disability Insurance	31-22200-0000-1	1.36
EDD	INV0021017	04/05/2022	SDI - State Disability Insurance	32-22200-0000-1	1.05
				Vendor EDD - EDD Total:	**-55.48**
Vendor: EFTPS - Electronic Federal Tax Payment System					
Electronic Federal Tax Payment ...	INV0021015	04/05/2022	Social Security	30-22100-0000-1	17.60
Electronic Federal Tax Payment ...	INV0021015	04/05/2022	Social Security	31-22100-0000-1	17.00

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Electronic Federal Tax Payment ...	INV0021015	04/05/2022	Social Security	32-22100-0000-1	12.94
Electronic Federal Tax Payment ...	INV0021018	04/05/2022	Medicare	30-22150-0000-1	4.10
Electronic Federal Tax Payment ...	INV0021018	04/05/2022	Medicare	31-22150-0000-1	4.00
Electronic Federal Tax Payment ...	INV0021018	04/05/2022	Medicare	32-22150-0000-1	3.04
			Vendor EFTPS - Electronic Federal Tax Payment System Total:		**58.68**
Vendor: Haaker Equipment Co. - Haaker Equipment Co.					
Haaker Equipment Co.	W70708	04/04/2022	INV W70708 Check Engine Light	01-180-56440-0000-1	243.60
			Vendor Haaker Equipment Co. - Haaker Equipment Co. Total:		**243.60**
Vendor: Home Depot - Home Depot					
Home Depot	1103485	04/04/2022	Supplies - Operating	01-155-57400-0000-1	156.21
Home Depot	4063676	04/04/2022	Auth Code 4063676 Key Schlage	01-180-56400-0000-1	1.70
Home Depot	4063676	04/04/2022	Auth Code 4063676 Key Schlage	20-200-57400-0000-1	0.17
Home Depot	4063676	04/04/2022	Auth Code 4063676 Key Schlage	30-500-56400-0000-1	2.47
Home Depot	4063676	04/04/2022	Auth Code 4063676 Key Schlage	31-505-57400-0000-1	1.70
Home Depot	4063676	04/04/2022	Auth Code 4063676 Key Schlage	32-510-56400-0000-1	2.47
Home Depot	5063315	04/04/2022	CC 2532 Home Depot Auth Code..	01-180-57400-0000-1	114.62
Home Depot	5063315	04/04/2022	CC 2532 Home Depot Auth Code..	01-190-56400-0000-1	8.36
Home Depot	5063315	04/04/2022	CC 2532 Home Depot Auth Code..	20-200-57400-0000-1	74.91
			Vendor Home Depot - Home Depot Total:		**362.61**
Vendor: Jenny Esparza - Jenny Esparza					
Jenny Esparza	INV0020993	04/04/2022	Mileage reimbursement - Wells...	30-500-52000-0000-1	2.73
Jenny Esparza	INV0020993	04/04/2022	Mileage reimbursement - Wells...	31-505-52000-0000-1	2.73
Jenny Esparza	INV0020993	04/04/2022	Mileage reimbursement - Wells...	32-510-52000-0000-1	2.73
			Vendor Jenny Esparza - Jenny Esparza Total:		**8.19**
Vendor: Jim Burke - Jim Burke					
Jim Burke	1462628	04/04/2022	INV 1462628 Burke Auto	30-500-56600-0000-1	1,257.05
Jim Burke	1462629	04/04/2022	INV 1462629 Burke Auto	32-510-56600-0000-1	1,257.05
Jim Burke	1470931	04/04/2022	INV 1470931 Burke Auto	30-500-56600-0000-1	112.66
Jim Burke	1470931	04/04/2022	INV 1470931 Burke Auto	32-510-56600-0000-1	112.67
			Vendor Jim Burke - Jim Burke Total:		**2,739.43**
Vendor: Jim White - Jim White					
Jim White	INV0020996	04/04/2022	Planning Commission Meeting ...	01-140-52200-0000-1	30.00
			Vendor Jim White - Jim White Total:		**30.00**
Vendor: Jim's Supply - Jim's Supply					
Jim's Supply	323365	04/04/2022	INV 323365 Stihl Brush Shield P...	01-180-57400-0000-1	47.18
			Vendor Jim's Supply - Jim's Supply Total:		**47.18**
Vendor: John Hancock - John Hancock					
John Hancock	INV0021013	04/05/2022	401K - Employer	30-20800-0000-1	14.11
John Hancock	INV0021013	04/05/2022	401K - Employer	31-20800-0000-1	13.62
John Hancock	INV0021013	04/05/2022	401K - Employer	32-20800-0000-1	10.51
John Hancock	INV0021014	04/05/2022	401K - Employee	30-20800-0000-1	1.29
John Hancock	INV0021014	04/05/2022	401K - Employee	31-20800-0000-1	1.29
John Hancock	INV0021014	04/05/2022	401K - Employee	32-20800-0000-1	1.32
			Vendor John Hancock - John Hancock Total:		**42.14**
Vendor: Jose Hernandez - Jose Hernandez					
Jose Hernandez	INV0020998	04/04/2022	Planning Commission Meeting ...	01-140-52200-0000-1	30.00
Jose Hernandez	INV0020999	04/04/2022	Planning Commission Meeting ...	01-140-52200-0000-1	50.00
			Vendor Jose Hernandez - Jose Hernandez Total:		**80.00**
Vendor: Jose L Hernandez - Jose Luis Hernandez					
Jose Luis Hernandez	INV0020997	04/04/2022	Planning Commission Meeting ...	01-140-52200-0000-1	30.00
Jose Luis Hernandez	INV0021000	04/04/2022	Planning Commission Meeting ...	01-140-52200-0000-1	50.00
			Vendor Jose L Hernandez - Jose Luis Hernandez Total:		**80.00**
Vendor: Esquibel Joshua - Joshua Esquibel					
Joshua Esquibel	INV0020995	04/04/2022	Code Enforcement training fuel ...	01-165-54000-0000-1	41.00
			Vendor Esquibel Joshua - Joshua Esquibel Total:		**41.00**

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Vendor: J's Automotive - J's Automotive					
J's Automotive	9498	04/04/2022	INV 9498 Ford Converter	32-510-56600-0000-1	180.00
				Vendor J's Automotive - J's Automotive Total:	**180.00**
Vendor: K.C. Waste - K.C. Waste					
K.C. Waste	INV0021001	04/04/2022	February 2022 Gate Fees	31-505-52800-0000-1	4,325.94
				Vendor K.C. Waste - K.C. Waste Total:	**4,325.94**
Vendor: Leaf - LEAF Capital Funding LLC					
LEAF Capital Funding LLC	12958973	04/04/2022	Inv 12958973	01-130-52200-0000-1	26.83
				Vendor Leaf - LEAF Capital Funding LLC Total:	**26.83**
Vendor: Liebert C. Whitmore - Liebert C. Whitmore					
Liebert C. Whitmore	2889-437-1-ceb9	04/04/2022	Invoice 2889-437-1-ceb9	01-110-52000-0000-1	67.19
Liebert C. Whitmore	2889-437-1-ceb9	04/04/2022	Invoice 2889-437-1-ceb9	01-150-52000-0000-1	67.19
				Vendor Liebert C. Whitmore - Liebert C. Whitmore Total:	**134.38**
Vendor: Luis Sarabia - Luis Sarabia					
Luis Sarabia	INV0021002	04/04/2022	Planning Commission Meeting ...	01-140-52200-0000-1	30.00
Luis Sarabia	INV0021003	04/04/2022	Planning Commission Meeting ...	01-140-52200-0000-1	50.00
				Vendor Luis Sarabia - Luis Sarabia Total:	**80.00**
Vendor: Marco A. Martinez - Marco A. Martinez					
Marco A. Martinez	INV0021004	04/04/2022	Planning Commission Meeting ...	01-140-52200-0000-1	30.00
Marco A. Martinez	INV0021005	04/04/2022	Planning Commission Meeting ...	01-140-52200-0000-1	50.00
				Vendor Marco A. Martinez - Marco A. Martinez Total:	**80.00**
Vendor: Mario Sanchez - Mario Sanchez					
Mario Sanchez	INV0021021	04/04/2022	Interpreting Invoices for Feb 24,...	01-105-56000-0000-1	150.00
Mario Sanchez	INV0021021	04/04/2022	Interpreting Invoices for March ...	01-105-56000-0000-1	300.00
Mario Sanchez	INV0021021	04/04/2022	Interpreting Invoice Feb 10, 20...	01-105-56000-0000-1	300.00
Mario Sanchez	INV0021021	04/04/2022	Interpreting Invoices for March ...	01-105-56000-0000-1	300.00
				Vendor Mario Sanchez - Mario Sanchez Total:	**1,050.00**
Vendor: Mark Thomas & Compan - Mark Thomas & Company, Inc.					
Mark Thomas & Company, Inc.	42017	04/04/2022	Inv No. 42017 - LRSP	26-110-53100-8530-1	1,959.50
Mark Thomas & Company, Inc.	42203	04/04/2022	Inv No. 42203 - LRSP	26-110-53100-8530-1	1,395.75
				Vendor Mark Thomas & Compan - Mark Thomas & Company, Inc. Total:	**3,355.25**
Vendor: Valbridge Property A - MB Appraisal, Inc.					
MB Appraisal, Inc.	CA08-21-758	04/04/2022	Right of Way appraisal - Inv No....	01-140-56000-0000-1	6,000.00
				Vendor Valbridge Property A - MB Appraisal, Inc. Total:	**6,000.00**
Vendor: McFarland Tire - McFarland Tire					
McFarland Tire	24332	04/04/2022	INV 24332 Flat Tire	32-510-56600-0000-1	17.00
McFarland Tire	24423	04/04/2022	INV 24423 John Deer Tractor R...	01-180-56430-0000-1	50.00
				Vendor McFarland Tire - McFarland Tire Total:	**67.00**
Vendor: Office Depot - Office Depot					
Office Depot	184987034001	04/04/2022	Inv.184987034001 Office depot	30-500-57200-0000-1	219.83
Office Depot	184987034001	04/04/2022	Inv.184987034001 Office depot	31-505-57200-0000-1	219.83
Office Depot	184987034001	04/04/2022	Inv.184987034001 Office depot	32-510-57200-0000-1	293.11
Office Depot	190236675001	04/04/2022	Inv. 190236675001 Recorder T...	01-130-57200-0000-1	975.33
Office Depot	208151778001	04/04/2022	Inv. 208151778001 Office depot	30-500-57200-0000-1	215.61
Office Depot	208151778001	04/04/2022	Inv. 208151778001 Office depot	31-505-57200-0000-1	215.61
Office Depot	208151778001	04/04/2022	Inv. 208151778001 Office depot	32-510-57200-0000-1	287.48
Office Depot	208151778002	04/04/2022	Inv. 208151778002 Anti Fatigue...	30-500-57200-0000-1	35.15
Office Depot	208151778002	04/04/2022	Inv. 208151778002 Anti Fatigue...	31-505-57200-0000-1	35.15
Office Depot	208151778002	04/04/2022	Inv. 208151778002 Anti Fatigue...	32-510-57200-0000-1	46.88
				Vendor Office Depot - Office Depot Total:	**2,543.98**
Vendor: Pace Analytical Serv - Pace Analytical Services, LLC					
Pace Analytical Services, LLC	B433885	04/04/2022	INV B433885 Drinking Water - ...	32-510-58200-0000-1	340.00
Pace Analytical Services, LLC	B433974	04/04/2022	INV B433974 Drinking Water	32-510-58200-0000-1	90.00
Pace Analytical Services, LLC	B434039	04/04/2022	INV B434039 Bacteriological	32-510-58200-0000-1	80.00
Pace Analytical Services, LLC	B434574	04/04/2022	INV B434574 Bacteriological	32-510-58200-0000-1	20.00
Pace Analytical Services, LLC	B434695	04/04/2022	INV B434695 Bacteriological	32-510-58200-0000-1	80.00
Pace Analytical Services, LLC	B434713	04/04/2022	INV B434713 Effluent/Influent	30-500-58200-0000-1	95.00

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Pace Analytical Services, LLC	B435146	04/04/2022	INV B435146 Drinking Water H...	32-510-58200-0000-1	275.00
Pace Analytical Services, LLC	B435149	04/04/2022	INV B435149 Drinking Water Ga...	32-510-58200-0000-1	37.50
Pace Analytical Services, LLC	B435328	04/04/2022	INV B435328 Effluent/Influent	30-500-58200-0000-1	95.00
Pace Analytical Services, LLC	B435351	04/04/2022	INV B435351 Effluent/Influent	30-500-58200-0000-1	150.00
Pace Analytical Services, LLC	B435667	04/04/2022	INV B435667 Bacteriological	32-510-58200-0000-1	80.00
Pace Analytical Services, LLC	B435986	04/04/2022	INV B435986 Effluent/Influent	30-500-58200-0000-1	95.00
Pace Analytical Services, LLC	B435993	04/04/2022	INV B435993 Bacteriological	32-510-58200-0000-1	80.00
Pace Analytical Services, LLC	B437155	04/04/2022	INV B437155 Effluent/Influent	30-500-58200-0000-1	95.00
Pace Analytical Services, LLC	B437787	04/04/2022	INV B437787 Effluent/Influent	30-500-58200-0000-1	150.00
Pace Analytical Services, LLC	B438359	04/04/2022	INV B438359 Effluent/Influent	30-500-58200-0000-1	95.00
Pace Analytical Services, LLC	B438636	04/04/2022	INV B438636 Effluent/Influent	30-500-58200-0000-1	95.00
Pace Analytical Services, LLC	B438937	04/04/2022	INV B438937 Effluent/Influent	30-500-58200-0000-1	109.00
Pace Analytical Services, LLC	B439549	04/04/2022	INV B439549 Effluent/Influent	30-500-58200-0000-1	150.00
Pace Analytical Services, LLC	B439831	04/04/2022	INV B439831 Qrtly Ground Wat...	30-500-58200-0000-1	71.00
Pace Analytical Services, LLC	B439973	04/04/2022	INV B439973 Effluent/Influent	30-500-58200-0000-1	95.00
Pace Analytical Services, LLC	B440192	04/04/2022	INV B440192 Effluent/Influent	30-500-58200-0000-1	95.00
Pace Analytical Services, LLC	B440672	04/04/2022	INV B440672 Bacteriological	32-510-58200-0000-1	80.00
Pace Analytical Services, LLC	B440778	04/04/2022	INV B440778 Effluent/Influent	30-500-58200-0000-1	109.00
Pace Analytical Services, LLC	B441070	04/04/2022	INV B441070 Drinking Water CL...	32-510-58200-0000-1	37.50
			Vendor Pace Analytical Serv - Pace Analytical Services, LLC Total:		**2,699.00**
Vendor: Personnel Concepts - Personnel Concepts					
Personnel Concepts	9349289762	04/04/2022	Inv. 9349289762	01-130-57200-0000-1	376.28
Personnel Concepts	9349289762	04/04/2022	Inv. 9349289762	01-180-53200-0000-1	75.02
Personnel Concepts	9349289762	04/04/2022	Inv. 9349289762	30-500-53200-0000-1	113.69
Personnel Concepts	9349289762	04/04/2022	Inv. 9349289762	31-505-53200-0000-1	14.21
Personnel Concepts	9349289762	04/04/2022	Inv. 9349289762	32-510-53200-0000-1	128.04
Personnel Concepts	9349289762	04/04/2022	Inv. 9349289762	34-520-53200-0000-1	14.14
			Vendor Personnel Concepts - Personnel Concepts Total:		**721.38**
Vendor: Peter Consentini - Peter Consentini					
Peter Consentini	INV0021007	04/04/2022	P Cosentini 3-15 Moving Expen...	01-105-56000-0000-1	3,900.00
			Vendor Peter Consentini - Peter Consentini Total:		**3,900.00**
Vendor: Petty Cash - Petty Cash					
Petty Cash	INV0021006	04/04/2022	Order #4071994 Covid Clinic	01-150-55050-0000-1	129.00
			Vendor Petty Cash - Petty Cash Total:		**129.00**
Vendor: Quad Knopf - Quad Knopf					
Quad Knopf	112508	04/04/2022	INV 112508 Wastewater Profess..	30-500-56000-0000-1	7,587.50
			Vendor Quad Knopf - Quad Knopf Total:		**7,587.50**
Vendor: R&F Disposal - R&F Disposal					
R&F Disposal	102135	04/04/2022	Inv. 102135 R&F Disp. 3yd Kenn...	01-155-58050-0000-1	143.56
R&F Disposal	228227	04/04/2022	Inv. 228227 R&F Disp. 3yd Kenn...	01-155-58050-0000-1	143.56
R&F Disposal	383123	04/04/2022	Inv. 383123 R&F Disp. 3yd Kenn...	01-155-58050-0000-1	143.56
R&F Disposal	526505	04/04/2022	Inv. 526505 R&F Disp. 3yd Kenn...	01-155-58050-0000-1	143.56
R&F Disposal	5274	04/04/2022	R & F Disposal - Inv 5274	01-155-58050-0000-1	143.56
R&F Disposal	5276	04/04/2022	Inv. 5276 R&F Recycling Fees	01-150-55200-0000-1	107.32
R&F Disposal	INV0021022	04/04/2022	March 2022 R&F Disposal Recycl..	31-505-52500-0000-1	11,354.34
R&F Disposal	INV0021023	04/04/2022	March 2022 RF Disposal Garbag...	01-100-41300-0000-1	-4,115.63
R&F Disposal	INV0021023	04/04/2022	March 2022 RF Disposal Garbag...	31-505-42340-0000-1	-2,166.75
R&F Disposal	INV0021023	04/04/2022	March 2022 RF Disposal Garbag...	31-505-52400-0000-1	82,312.50
			Vendor R&F Disposal - R&F Disposal Total:		**88,209.58**
Vendor: Arrowhead - Ready Refresh					
Ready Refresh	INV0021012	04/04/2022	Acct#0033594904	01-150-57200-0000-1	18.84
			Vendor Arrowhead - Ready Refresh Total:		**18.84**
Vendor: 661 Communications - Rodger C. Goodman JR					
Rodger C. Goodman JR	1653	04/04/2022	Inv 1653 - Labor Reprogram Ph...	01-190-57800-0000-1	127.50
			Vendor 661 Communications - Rodger C. Goodman JR Total:		**127.50**

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Vendor: Ronald E. Brummett - Ronald E. Brummett					
Ronald E. Brummett	INV0021008	04/04/2022	Ron Brummett - July - Decembe...	01-140-55500-0000-1	3,740.00
				Vendor Ronald E. Brummett - Ronald E. Brummett Total:	**3,740.00**
Vendor: SC SITES Services - SC SITES Services					
SC SITES Services	51267	04/04/2022	INV 51267 Monthly Radio Dispa...	01-180-57800-0000-1	70.00
SC SITES Services	51267	04/04/2022	INV 51267 Monthly Radio Dispa...	32-510-57800-0000-1	70.00
SC SITES Services	51267	04/04/2022	INV 51267 Monthly Radio Dispa...	34-520-57800-0000-1	70.00
				Vendor SC SITES Services - SC SITES Services Total:	**210.00**
Vendor: SPD - SPD					
SPD	18183	04/04/2022	Inv. 18183 Code Enforcement B...	01-165-57400-8100-1	108.25
				Vendor SPD - SPD Total:	**108.25**
Vendor: State Controller - State Controller					
State Controller	FAUD-00003138	04/04/2022	INV FAUD-00003138 Annual Str...	01-130-56000-0000-1	2,304.69
				Vendor State Controller - State Controller Total:	**2,304.69**
Vendor: CALTRANS - State of California Department of Transportation					
State of California Department ...	22007738	04/04/2022	Whisler Road Interchange - Inv ...	01-140-56000-0000-1	5,000.00
				Vendor CALTRANS - State of California Department of Transportation Total:	**5,000.00**
Vendor: Stinson Stationers, - Stinson Stationers, Inc.					
Stinson Stationers, Inc.	154520-0	04/04/2022	Inv 154520-0 02/28/22 Copy/ L...	01-130-57200-0000-1	75.05
Stinson Stationers, Inc.	154520-0	04/04/2022	Inv 154520-0 02/28/22 Copy/ L...	30-500-57200-0000-1	75.05
Stinson Stationers, Inc.	154520-0	04/04/2022	Inv 154520-0 02/28/22 Copy/ L...	31-505-57200-0000-1	75.05
Stinson Stationers, Inc.	154520-0	04/04/2022	Inv 154520-0 02/28/22 Copy/ L...	32-510-57200-0000-1	75.06
				Vendor Stinson Stationers, - Stinson Stationers, Inc. Total:	**300.21**
Vendor: Sun Ridge Systems, - Sun Ridge Systems,					
Sun Ridge Systems,	6912	04/04/2022	2022-2023 Annual Support Serv...	01-150-54800-0000-1	23,267.00
				Vendor Sun Ridge Systems, - Sun Ridge Systems, Total:	**23,267.00**
Vendor: Telstar Instruments - Telstar Instruments					
Telstar Instruments	111049	04/04/2022	INV 111049 Maintenance	30-500-56410-0000-1	691.25
				Vendor Telstar Instruments - Telstar Instruments Total:	**691.25**
Vendor: ADT - The ADT Security Corportation					
The ADT Security Corportation	144452737	04/04/2022	Inv 144452737 MMW 04/04/22...	32-510-52200-0000-1	49.00
				Vendor ADT - The ADT Security Corportation Total:	**49.00**
Vendor: HEL100-128 - Tyler Helton					
Tyler Helton	INV0020994	04/04/2022	FY 2021/2022 - Uniform Allowa...	01-150-51800-0000-1	750.00
				Vendor HEL100-128 - Tyler Helton Total:	**750.00**
Vendor: U.S. Bank - U.S. Bank					
U.S. Bank	62734311	04/04/2022	Inv 6274311 Water & Waste Wa..	30-500-56000-0000-1	989.00
U.S. Bank	62734311	04/04/2022	Inv 6274311 Water & Waste Wa..	32-510-56000-0000-1	989.00
				Vendor U.S. Bank - U.S. Bank Total:	**1,978.00**
Vendor: Ultrex Business - Ultrex Business					
Ultrex Business	3453259	04/04/2022	Inv 3453259 Contract Services ...	01-150-52200-0000-1	140.76
				Vendor Ultrex Business - Ultrex Business Total:	**140.76**
Vendor: Vision Service Plan- - Vision Service Plan-					
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-105-50550-0000-1	55.06
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-110-50550-0000-1	11.81
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-115-50550-0000-1	8.95
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-140-50550-0000-1	16.16
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-150-50550-0000-1	363.80
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-155-50550-0000-1	29.15
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-160-50550-0000-1	5.83
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-165-50550-0000-1	11.66
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-175-50550-0000-1	34.98
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	01-180-50550-0000-1	104.47
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	20-200-50550-0000-1	18.95
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	30-500-50550-0000-1	134.10
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	31-505-50550-0000-1	18.57

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	32-510-50550-0000-1	110.42
Vision Service Plan-	INV0021020	04/04/2022	Vision Insurance Mar 2022	34-520-50550-0000-1	29.15
			Vendor Vision Service Plan- - Vision Service Plan- Total:		**953.06**
Vendor: WestAir - WestAir Gases & Equipment, Inc.					
WestAir Gases & Equipment, Inc.	80429333	04/04/2022	INV 80429333 Acetylene High P...	30-500-53800-0000-1	69.52
			Vendor WestAir - WestAir Gases & Equipment, Inc. Total:		**69.52**
Vendor: Western City - Western City					
Western City	INV0021009	04/04/2022	westerncity com dev posting 3....	01-140-56000-0000-1	300.00
			Vendor Western City - Western City Total:		**300.00**
			Grand Total:		**215,251.05**

Report Summary

Fund Summary

Fund	Payment Amount
01 - GENERAL FUND	77,458.13
20 - LIGHTING & LANDSCAPING-DISTRICT 1	273.40
26 - MISCELLANEOUS GRANTS	3,355.25
30 - SEWER	19,294.78
31 - REFUSE/RECYCLING	97,217.93
32 - WATER	17,450.09
34 - PUBLIC TRANSPORTATION	201.47
Grand Total:	**215,251.05**

Account Summary

Account Number	Account Name	Payment Amount
01-100-41300-0000-1	Franchise Fees	-4,115.63
01-105-50550-0000-1	Dental/Vision Premiums	55.06
01-105-52200-0000-1	Contract Services	1,718.68
01-105-56000-0000-1	Professional Services - Ot…	4,950.00
01-105-57800-0000-1	Telephone & Communicat…	439.01
01-110-50550-0000-1	Dental/Vision Premiums	11.81
01-110-52000-0000-1	Conferences/Meetings/Tr…	67.19
01-110-57800-0000-1	Telephone & Communicat…	126.98
01-115-50550-0000-1	Dental/Vision Premiums	8.95
01-115-57800-0000-1	Telephone & Communicat…	120.45
01-130-52200-0000-1	Contract Services	68.23
01-130-56000-0000-1	Professional Services - Ot…	2,304.69
01-130-57200-0000-1	Supplies - Office	1,426.66
01-140-41400-8150-1	Planning & Engineering F…	980.00
01-140-41400-8467-1	Planning & Engineering F…	822.50
01-140-41400-8471-1	Planning & Engineering F…	3,257.00
01-140-41400-8472-1	Planning & Engineering F…	2,635.00
01-140-50550-0000-1	Dental/Vision Premiums	16.16
01-140-52200-0000-1	Contract Services	350.00
01-140-55500-0000-1	Special Studies/Master Pl…	3,740.00
01-140-55500-8510-1	Special Studies/Master Pl…	17,849.00
01-140-56000-0000-1	Professional Services - Ot…	11,300.00
01-140-56000-8469-1	Professional Services - Ca…	480.00
01-140-57800-0000-1	Telephone & Communicat…	91.20
01-150-50550-0000-1	Dental/Vision Premiums	363.80
01-150-51800-0000-1	Clothing Allowance	750.00
01-150-52000-0000-1	Conferences/Meetings/Tr…	67.19
01-150-52200-0000-1	Contract Services	498.35
01-150-54000-0000-1	Fuel	57.07
01-150-54800-0000-1	Maintenance Agreements	23,267.00
01-150-55050-0000-1	Reimbursement	129.00
01-150-55200-0000-1	Miscellaneous	107.32
01-150-56600-0000-1	Repairs & Maintenance - …	156.88
01-150-57200-0000-1	Supplies - Office	18.84
01-155-50550-0000-1	Dental/Vision Premiums	29.15
01-155-57400-0000-1	Supplies - Operating	156.21
01-155-57800-0000-1	Telephone & Communicat…	91.20
01-155-58050-0000-1	Utilities Other	717.80
01-160-50550-0000-1	Dental/Vision Premiums	5.83
01-160-57800-0000-1	Telephone & Communicat…	168.08
01-165-50550-0000-1	Dental/Vision Premiums	11.66
01-165-54000-0000-1	Fuel	41.00
01-165-57400-8100-1	Supplies - Operating	108.25
01-165-57800-0000-1	Telephone & Communicat…	202.41
01-175-50550-0000-1	Dental/Vision Premiums	34.98
01-175-57800-0000-1	Telephone & Communicat…	91.20

Account Summary

Account Number	Account Name	Payment Amount
01-180-50550-0000-1	Dental/Vision Premiums	104.47
01-180-51800-0000-1	Clothing Allowance	114.17
01-180-53200-0000-1	Dues & Subscriptions	75.02
01-180-56400-0000-1	Repairs/Maintenance-Bui…	1.70
01-180-56430-0000-1	Repairs & Maintenance - …	50.00
01-180-56440-0000-1	Repairs & Maintenance-St…	243.60
01-180-56500-0000-1	Repairs/Maintenance Str…	33.43
01-180-56600-0000-1	Repairs/Maintenance - V…	319.44
01-180-57400-0000-1	Supplies - Operating	161.80
01-180-57800-0000-1	Telephone & Communicat…	158.14
01-185-56400-0000-1	Repairs & Maint - Build & …	284.34
01-190-56400-0000-1	Repairs & Maint - Build & …	8.36
01-190-57800-0000-1	Telephone & Communicat…	127.50
20-200-50550-0000-1	Dental/Vision Premiums	18.95
20-200-57400-0000-1	Supplies - Operating	174.33
20-200-57800-0000-1	Telephone & Communicat…	80.12
26-110-53100-8530-1	Grant Expenditures LSRP	3,355.25
30-20800-0000-1	Pension Payable	15.40
30-22100-0000-1	FICA Payable	17.60
30-22150-0000-1	Medicare Payable	4.10
30-22200-0000-1	State Withholding Payable	5.77
30-22250-0000-1	SUTA Payable	-24.51
30-500-50550-0000-1	Dental/Vision Premiums	134.10
30-500-51800-0000-1	Clothing Allowance	97.85
30-500-52000-0000-1	Conferences/Meetings/Tr…	2.73
30-500-52200-0000-1	Contract Services	1,501.46
30-500-53200-0000-1	Dues & Subscriptions	113.69
30-500-53800-0000-1	Equipment Rental	69.52
30-500-55600-0000-1	Postage	505.05
30-500-56000-0000-1	Professional Services - Ot…	8,576.50
30-500-56400-0000-1	Repairs & Maint - Build & …	2.47
30-500-56410-0000-1	Repairs & Maintenance E…	865.31
30-500-56600-0000-1	Repairs & Maintenance - …	3,068.87
30-500-57200-0000-1	Supplies - Office	545.64
30-500-57800-0000-1	Telephone & Communicat…	444.23
30-500-58200-0000-1	Water/Soil/Other Analysis	3,349.00
31-20800-0000-1	Pension Payable	14.91
31-22100-0000-1	FICA Payable	17.00
31-22150-0000-1	Medicare Payable	4.00
31-22200-0000-1	State Withholding Payable	5.50
31-22250-0000-1	SUTA Payable	-24.08
31-505-42340-0000-1	Administration Fee	-2,166.75
31-505-50550-0000-1	Dental/Vision Premiums	18.57
31-505-52000-0000-1	Conferences/Meetings/Tr…	2.73
31-505-52200-0000-1	Contract Services	212.44
31-505-52400-0000-1	Contract Services - Refuse…	82,312.50
31-505-52500-0000-1	Contract Services - Recycl…	11,354.34
31-505-52800-0000-1	County Waste Manageme…	4,325.94
31-505-53200-0000-1	Dues & Subscriptions	14.21
31-505-55600-0000-1	Postage	505.04
31-505-57200-0000-1	Supplies - Office	545.64
31-505-57400-0000-1	Supplies - Operating	1.70
31-505-57800-0000-1	Telephone & Communicat…	74.24
32-20800-0000-1	Pension Payable	11.83
32-22100-0000-1	FICA Payable	12.94
32-22150-0000-1	Medicare Payable	3.04
32-22200-0000-1	State Withholding Payable	3.74
32-22250-0000-1	SUTA Payable	-21.90

Account Summary

Account Number	Account Name	Payment Amount
32-510-50550-0000-1	Dental/Vision Premiums	110.42
32-510-51800-0000-1	Clothing Allowance	37.41
32-510-52000-0000-1	Conferences/Meetings/Tr…	2.73
32-510-52200-0000-1	Contract Services	1,550.46
32-510-53200-0000-1	Dues & Subscriptions	128.04
32-510-55600-0000-1	Postage	505.05
32-510-56000-0000-1	Professional Services - Ot…	989.00
32-510-56400-0000-1	Repairs & Maint - Build & …	2.47
32-510-56600-0000-1	Repairs & Maintenance - …	1,589.82
32-510-57200-0000-1	Supplies - Office	702.53
32-510-57400-0000-1	Supplies - Operating	7,213.12
32-510-57800-0000-1	Telephone & Communicat…	483.39
32-510-58200-0000-1	Water/Soil/Other Analysis	4,126.00
34-520-50550-0000-1	Dental/Vision Premiums	29.15
34-520-53200-0000-1	Dues & Subscriptions	14.14
34-520-57800-0000-1	Telephone & Communicat…	158.18
	Grand Total:	**215,251.05**

Project Account Summary

Project Account Key		Payment Amount
None		215,251.05
	Grand Total:	**215,251.05**

City of McFarland, CA

Pay Code Report

Summary By Department

3/1/2022 - 3/31/2022

Payroll Set: City-City of McFarland

Department: 105 - City Council

Employee Number	Pay Code	# of Payments	Units	Pay Amount
Ayo100	Salary - Elected - Salary - Elected	1	-	200.00
		Total Gross:	**-**	**200.00**
Cano100	Salary - Elected - Salary - Elected	1	-	200.00
		Total Gross:	**-**	**200.00**
GON300	Salary - Elected - Salary - Elected	1	-	200.00
		Total Gross:	**-**	**200.00**
PER100	Salary - Elected - Salary - Elected	1	-	200.00
		Total Gross:	**-**	**200.00**
		105 - City Council Total:	**-**	**800.00**

Department: 110 - City Administration

Employee Number	Pay Code	# of Payments	Units	Pay Amount
ALV100	Bilingual - Bilingual	2	-	27.68
	Holiday - Holiday Pay	1	9.00	224.27
	Hourly - Hourly	2	102.00	2,541.69
	Vacation - Vacation Pay	1	9.00	224.27
		Total Gross:	**120.00**	**3,017.91**
CON100	Admin Time* - Administrative Ti	1	4.00	230.77
	Holiday - Holiday Pay	1	9.00	519.23
	Hourly - Hourly	2	147.00	8,480.76
	Transition Exp - Transition Exp	1	1.00	5,855.00
		Total Gross:	**161.00**	**15,085.76**
DRA100	Hourly - Hourly	1	31.00	520.49
		Total Gross:	**31.00**	**520.49**
GAR-200	Holiday - Holiday Pay	1	9.00	280.08
	Hourly - Hourly	2	147.00	4,574.64
	Sick - Sick Pay	1	4.00	124.48
		Total Gross:	**160.00**	**4,979.20**
	110 - City Administration Total:		**472.00**	**23,603.36**

Department: 115 - Finance & Accounting

Employee Number	Pay Code	# of Payments	Units	Pay Amount
ESP100	Bachelor's Degree - Bachelor's D	6	-	18.46
	Bilingual - Bilingual	6	-	27.68
	Comp Time Earned - Compensat	3	3.90	-
	Holiday - Holiday Pay	3	9.00	151.11
	Hourly - Hourly	6	140.50	2,359.00
	Sick - Sick Pay	3	10.50	176.30
	Total Gross:		**163.90**	**2,732.55**
GOM200	Hourly - Hourly	2	117.22	1,782.92
	OT - Overtime	1	1.91	43.58
	Total Gross:		**119.13**	**1,826.50**
LAR200	Holiday - Holiday Pay	1	9.00	297.18
	Hourly - Hourly	2	105.50	3,483.61
	OT - Overtime	2	6.25	255.91
	Sick - Sick Pay	1	24.00	792.48
	Vacation - Vacation Pay	2	21.50	709.93
	Total Gross:		**166.25**	**5,539.11**
VAS200	Bachelor's Degree - Bachelor's D	2	-	18.46
	Bilingual - Bilingual	2	-	27.68
	Holiday - Holiday Pay	1	9.00	203.22
	Hourly - Hourly	2	125.63	2,836.73
	Sick - Sick Pay	2	13.00	293.54
	Vacation - Vacation Pay	2	12.37	279.31
	Total Gross:		**160.00**	**3,658.94**
VEL100	Comp Time Earned - Compensat	3	5.79	-
	Holiday - Holiday Pay	3	9.00	151.11
	Hourly - Hourly	6	148.27	2,489.45
	OT - Overtime	3	0.42	10.58
	Sick - Sick Pay	3	2.73	45.84
	Total Gross:		**166.21**	**2,696.98**
	115 - Finance & Accounting Total:		**775.49**	**16,454.08**

Department: 140 - Planning

Employee Number	Pay Code	# of Payments	Units	Pay Amount
DEL100	Bachelor's Degree - Bachelor's D	2	-	18.46
	Holiday - Holiday Pay	1	9.00	280.17
	Hourly - Hourly	1	71.00	2,210.23
	Salary - Salary	1	80.00	2,490.40
		Total Gross:	**160.00**	**4,999.26**
		140 - Planning Total:	**160.00**	**4,999.26**

Department: 150 - Police

Employee Number	Pay Code	# of Payments	Units	Pay Amount
ALB100-142	Holiday - Reg - Holiday - Regular	1	12.00	338.40
	Hourly - Hourly	2	156.00	4,399.20
	Vacation - Vacation Pay	1	12.00	338.40
	Total Gross:		**180.00**	**5,076.00**
ALW100-145	Holiday - Reg - Holiday - Regular	1	12.00	338.40
	Hourly - Hourly	2	156.00	4,399.20
	Intermediate POST - Intermediat	2	-	27.70
	Personal - Personal Day	1	12.00	338.40
	Total Gross:		**180.00**	**5,103.70**
AYON100	Holiday - Reg - Holiday - Regular	1	12.00	227.88
	Hourly - Hourly	2	108.75	2,065.16
	Sick - Sick Pay	1	12.00	227.88
	Vacation - Vacation Pay	1	4.00	75.96
	Total Gross:		**136.75**	**2,596.88**
CAZ100-151	Holiday - Reg - Holiday - Regular	1	12.00	322.08
	Hourly - Hourly	2	168.00	4,509.12
	OT - Overtime	2	6.50	261.69
	Total Gross:		**186.50**	**5,092.89**
DEW100-147	Correction - Correction	1	-	244.53
	Holiday - Reg - Holiday - Regular	1	12.00	373.44
	Hourly - Hourly	4	201.00	5,888.16
	OT - Overtime	4	16.50	770.22
	PD - Court Stand-by - PD Court S	3	15.00	700.20
	PD On-Call - PD On-Call (20)	3	41.50	830.00
	Total Gross:		**286.00**	**8,806.55**
DIN100-96	Comp Time Earned - Compensat	1	27.62	-
	Holiday - Reg - Holiday - Regular	1	12.00	239.52
	Hourly - Hourly	2	160.00	3,193.60
	OT - Overtime	2	16.09	481.73
	Total Gross:		**215.71**	**3,914.85**
EST150	Holiday - Reg - Holiday - Regular	1	12.00	322.08
	Hourly - Hourly	2	168.00	4,509.12
	OT - Overtime	1	11.00	442.86
	Total Gross:		**191.00**	**5,274.06**
GAL100-149	Holiday - Reg - Holiday - Regular	1	12.00	355.56
	Hourly - Hourly	2	168.00	4,977.84
	Intermediate POST - Intermediat	2	-	27.68
	Total Gross:		**180.00**	**5,361.08**

GAR100-114	Hourly - Temp - Hourly Tempora	2	95.00	1,804.05
	Sick - Sick Pay	1	4.00	75.96
		Total Gross:	**99.00**	**1,880.01**
GAR100-146	Holiday - Reg - Holiday - Regular	1	12.00	338.40
	Hourly - Hourly	2	168.00	4,737.60
	OT - Overtime	2	10.00	423.00
		Total Gross:	**190.00**	**5,499.00**
HAN100-112	Holiday - Reg - Holiday - Regular	1	12.00	402.24
	Hourly - Hourly	2	168.00	5,631.36
	K-9 Officer - K-9 Officer	2	-	36.92
	OT - Overtime	1	22.00	1,106.16
	Sergeant - Sergeant	2	-	41.54
		Total Gross:	**202.00**	**7,218.22**
HAS100-143	Holiday - Reg - Holiday - Regular	1	12.00	216.96
	Hourly - Hourly	2	160.00	2,892.80
	OT - Overtime	2	45.00	1,220.40
		Total Gross:	**217.00**	**4,330.16**
HEL100-128	Holiday - Reg - Holiday - Regular	1	12.00	422.64
	Hourly - Hourly	2	202.00	6,596.96
	OT - Overtime	1	8.00	422.64
	PD On-Call - PD On-Call (20)	1	42.00	1,479.24
		Total Gross:	**264.00**	**8,921.48**
HER100-130	Bachelor's Degree - Bachelor's D	2	-	18.46
	Holiday - Reg - Holiday - Regular	1	12.00	355.56
	Hourly - Hourly	2	168.00	4,977.84
	Intermediate POST - Intermedia	2	-	27.70
	OT - Overtime	2	9.50	422.23
		Total Gross:	**189.50**	**5,801.79**
HER100-144	Bachelor's Degree - Bachelor's D	2	-	18.46
	Holiday - Reg - Holiday - Regular	1	12.00	338.40
	Hourly - Hourly	2	144.00	4,060.80
	OT - Overtime	1	1.50	63.45
	Sick - Sick Pay	1	24.00	676.80
		Total Gross:	**181.50**	**5,157.91**
IBA100	Comp Time Earned - Compensat	2	38.25	-
	Holiday - Reg - Holiday - Regular	1	10.00	199.60
	Hourly - Hourly	2	148.00	2,954.08
	Sick - Sick Pay	1	12.00	239.52
	Sick - Reg - Sick - Regular	1	8.00	159.68
		Total Gross:	**216.25**	**3,552.88**

New100-148	Holiday - Reg - Holiday - Regular	1	12.00	373.44
	Hourly - Hourly	2	168.00	5,228.16
		Total Gross:	**180.00**	**5,601.60**
NIE100-34	Military - Military Leave With Ou	2	-	-
		Total Gross:	**-**	**-**
Nun100	Comp Time Earned - Compensat	1	8.25	-
	Comp Time Taken - Compensatc	1	2.00	47.44
	Holiday - Holiday Pay	1	8.00	189.76
	Holiday - Reg - Holiday - Regular	1	0.45	10.67
	Hourly - Hourly	2	143.25	3,397.89
	Hourly - Reg - Hourly - Regular	1	3.50	83.02
	Sick - Sick Pay	1	6.75	160.11
		Total Gross:	**172.20**	**3,888.89**
RIV100-120	Holiday - Holiday Pay	1	0.42	13.73
	Holiday - Reg - Holiday - Regular	1	11.58	378.67
	Sick - Sick Pay	1	35.58	1,163.47
	Vacation - Vacation Pay	1	44.00	1,438.80
		Total Gross:	**91.58**	**2,994.67**
WIL100-150	Admin Time* - Administrative Ti	1	8.00	711.54
	Holiday - Holiday Pay	1	8.00	711.54
	Hourly - Hourly	2	144.00	12,807.68
		Total Gross:	**160.00**	**14,230.76**
Will 100- 141	Hourly - Hourly	2	48.00	1,422.24
		Total Gross:	**48.00**	**1,422.24**
		150 - Police Total:	**3,766.99**	**111,725.62**

Department: 155 - Animal Control

Employee Number	Pay Code	# of Payments	Units	Pay Amount
MUN100	Holiday - Holiday Pay	1	9.00	154.89
	Hourly - Hourly	2	151.00	2,598.71
	OT - Overtime	2	6.41	165.48
	Total Gross:		**166.41**	**2,919.08**
RIV200	Holiday - Holiday Pay	1	9.00	140.31
	Hourly - Hourly	2	143.00	2,229.37
	OT - Overtime	1	2.19	51.21
	Total Gross:		**154.19**	**2,420.89**
	155 - Animal Control Total:		**320.60**	**5,339.97**

Department: 160 - Building Inspection

Employee Number	Pay Code	# of Payments	Units	Pay Amount
GIL100	Hourly - Hourly	1	15.50	1,174.13
		Total Gross:	**15.50**	**1,174.13**
RON100	Holiday - Holiday Pay	1	9.00	309.24
	Hourly - Hourly	2	143.00	4,913.48
	OT - Overtime	2	6.00	309.25
	Vacation - Vacation Pay	1	8.00	274.88
		Total Gross:	**166.00**	**5,806.85**
		160 - Building Inspection Total:	**181.50**	**6,980.98**

Department: 165 - Code Enforcement

Employee Number	Pay Code	# of Payments	Units	Pay Amount
ESQ100	Holiday - Holiday Pay	3	9.00	170.91
	Hourly - Hourly	6	150.00	2,848.50
	OT - Overtime	3	8.00	227.88
	Sick - Sick Pay	3	1.00	18.99
		Total Gross:	**168.00**	**3,266.28**
SHA100	Hourly - Temp - Hourly Tempora	2	36.00	754.92
		Total Gross:	**36.00**	**754.92**
		165 - Code Enforcement Total:	**204.00**	**4,021.20**

Department: 175 - Grants Administration

Employee Number	Pay Code	# of Payments	Units	Pay Amount
GAR200	Bilingual - Bilingual	1	-	13.84
	Holiday - Holiday Pay	1	9.00	229.91
	Hourly - Hourly	1	31.00	791.92
	Notary - Notary	1	-	13.85
	Sick - Sick Pay	1	24.74	632.00
	Vacation - Vacation Pay	1	12.70	324.43
	Total Gross:		**77.44**	**2,005.95**
	175 - Grants Administration Total:		**77.44**	**2,005.95**

Department: 180 - Public Works

Employee Number	Pay Code	# of Payments	Units	Pay Amount
GON200	Auto Allowance - Auto Allowanc	2	-	323.08
	Holiday - Holiday Pay	1	9.00	443.05
	Hourly - Hourly	1	69.50	3,421.35
	Salary - Salary	1	80.00	3,938.24
	Sick - Sick Pay	1	1.50	73.84
	Total Gross:		**160.00**	**8,199.56**
GUE100	Comp Time Earned - Compensat	2	12.00	224.19
	Holiday - Holiday Pay	1	9.00	224.19
	Hourly - Hourly	2	142.00	3,537.22
	Sick - Sick Pay	1	9.00	224.19
	Total Gross:		**172.00**	**4,209.79**
MAR100	Holiday - Holiday Pay	1	9.00	147.42
	Hourly - Hourly	2	133.00	2,178.54
	Sick - Sick Pay	2	7.38	120.88
	Vacation - Vacation Pay	2	6.14	100.58
	Total Gross:		**155.52**	**2,547.42**
PEN300	Holiday - Holiday Pay	1	9.00	154.80
	Hourly - Hourly	2	137.00	2,356.40
	Sick - Sick Pay	1	4.00	68.80
	Vacation - Vacation Pay	2	10.00	172.00
	Total Gross:		**160.00**	**2,752.00**
TEL100	Holiday - Holiday Pay	1	9.00	147.42
	Hourly - Hourly	1	23.00	376.74
	Sick - Sick Pay	1	4.00	65.52
	Vacation - Vacation Pay	1	44.00	720.72
	Total Gross:		**80.00**	**1,310.40**
	180 - Public Works Total:		**727.52**	**19,019.17**

Department: 200 - Lighting & Landscaping

Employee Number	Pay Code	# of Payments	Units	Pay Amount
MED200	Hourly - Hourly	2	90.00	1,474.20
		Total Gross:	**90.00**	**1,474.20**
	200 - Lighting & Landscaping Total:		**90.00**	**1,474.20**

Department: 500 - Sewer

Employee Number	Pay Code	# of Payments	Units	Pay Amount
GON400	Holiday - Holiday Pay	1	9.00	287.10
	Hourly - Hourly	2	120.50	3,843.95
	PW Cert - Grade 3 - Public Work	2	-	69.24
	Sick - Sick Pay	1	3.50	111.65
	Vacation - Vacation Pay	1	27.00	861.30
	Total Gross:	**160.00**	**5,173.24**	
MED100	Holiday - Holiday Pay	1	9.00	170.91
	Hourly - Hourly	2	133.00	2,525.67
	OT - Overtime	1	30.00	854.55
	PW Cert - Grade 1 - Public Work	2	-	23.16
	Vacation - Vacation Pay	1	18.00	341.82
	Total Gross:	**190.00**	**3,916.11**	
Pop100	Holiday - Holiday Pay	1	9.00	151.11
	Hourly - Hourly	2	151.00	2,535.29
	OT - Overtime	1	14.00	352.59
	Total Gross:	**174.00**	**3,038.99**	
	500 - Sewer Total:	**524.00**	**12,128.34**	

Department: 510 - Water

Employee Number	Pay Code	# of Payments	Units	Pay Amount
Brau100	Holiday - Holiday Pay	1	9.00	151.11
	Hourly - Hourly	2	134.00	2,249.86
	OT - Overtime	2	22.00	554.07
	Sick - Sick Pay	1	9.00	151.11
	Vacation - Vacation Pay	2	8.00	134.32
		Total Gross:	**182.00**	**3,240.47**
GAM200	Hourly - Hourly	1	40.00	655.20
		Total Gross:	**40.00**	**655.20**
PED100	Hourly - Hourly	1	56.00	917.28
		Total Gross:	**56.00**	**917.28**
		510 - Water Total:	**278.00**	**4,812.95**

Department: 520 - Public Transit

Employee Number	Pay Code	# of Payments	Units	Pay Amount
MOR100	Holiday - Holiday Pay	1	9.00	154.80
	Hourly - Hourly	2	82.00	1,410.40
	Sick - Sick Pay	1	12.00	206.40
	Workers Comp - Workers Comp	1	2.00	865.22
	Total Gross:		**105.00**	**2,636.82**
	520 - Public Transit Total:		**105.00**	**2,636.82**
	Report Total:		**7,682.54**	**216,001.90**

Pay Code Report

Account Summary

3/1/2022 - 3/31/2022

Payroll Set: City-City of McFarland

Account	Account Description	Units	Pay Amount
	BENEFIT AND NON GL TRANSACTIONS	95.81	468.72
	- Total:	**95.81**	**468.72**
01-105-50100-0000-1	Salaries - Permanent Employees	48.00	1,479.17
01-110-50100-0000-1	Salaries - Permanent Employees	128.00	8,704.06
01-115-50100-0000-1	Salaries - Permanent Employees	104.73	2,844.96
01-115-50200-0000-1	Overtime	0.75	37.15
01-140-50100-0000-1	Salaries - Permanent Employees	192.00	6,098.78
01-140-50200-0000-1	Overtime	1.20	61.85
01-150-50100-0000-1	Salaries - Permanent Employees	3,100.78	85,927.52
01-150-50150-0000-1	Wages - Temporary Employees	271.00	4,989.77
01-150-50200-0000-1	Overtime	161.09	6,314.58
01-150-50350-0000-1	Stipends	-	18.46
01-155-50100-0000-1	Salaries - Permanent Employees	281.60	5,198.15
01-155-50200-0000-1	Overtime	8.08	235.21
01-160-50100-0000-1	Salaries - Permanent Employees	32.00	1,099.52
01-160-50150-0000-1	Wages - Temporary Employees	15.50	1,174.13
01-160-50200-0000-1	Overtime	1.20	61.85
01-165-50100-0000-1	Salaries - Permanent Employees	211.20	4,342.19
01-165-50150-0000-1	Wages - Temporary Employees	26.28	551.09
01-165-50200-0000-1	Overtime	10.92	333.06
01-175-50100-0000-1	Salaries - Permanent Employees	109.44	3,105.47
01-175-50200-0000-1	Overtime	1.20	61.85
01-180-50100-0000-1	Salaries - Permanent Employees	585.82	12,103.19
01-180-50800-0000-1	Auto Allowance	-	64.62
	01 - GENERAL FUND Total:	**5,290.79**	**144,806.63**
20-200-50100-0000-1	Salaries/Permanent Employees	94.80	1,593.78
	20 - LIGHTING & LANDSCAPING-DISTRICT 1 Total:	**94.80**	**1,593.78**
30-500-50100-0000-1	Salaries - Permanent Employees	1,048.57	35,764.53
30-500-50150-0000-1	Wages - Temporary Employees	26.48	512.09
30-500-50200-0000-1	Overtime	45.65	1,265.42
30-500-50800-0000-1	Auto Allowance	-	129.24
	30 - SEWER Total:	**1,120.70**	**37,671.28**
31-505-50100-0000-1	Salaries - Permanent Employees	235.86	7,857.81
31-505-50200-0000-1	Overtime	1.62	57.18
	31 - REFUSE/RECYCLING Total:	**237.48**	**7,914.99**
32-510-50100-0000-1	Salaries - Permanent Employees	709.79	20,074.33
32-510-50150-0000-1	Wages - Temporary Employees	4.86	101.92
32-510-50200-0000-1	Overtime	23.31	604.21

Account	Account Description	Units	Pay Amount
32-510-50800-0000-1	Auto Allowance	-	129.22
	32 - WATER Total:	**737.96**	**20,909.68**
34-520-50100-0000-1	Salaries - Permanent Employees	105.00	2,636.82
	34 - PUBLIC TRANSPORTATION Total:	**105.00**	**2,636.82**
	Report Total:	**7,682.54**	**216,001.90**



City of McFarland, CA

Pay Code Report

Pay Code Summary

3/1/2022 - 3/31/2022

Payroll Set: City-City of McFarland

Pay Code	Description	# of Payments	Units	Pay Amount
Admin Time* - Administra	Administrative Time	2	12.00	942.31
Auto Allowance - Auto All	Auto Allowance	2	-	323.08
Bachelor's Degree - Bache	Bachelor's Degree	14	-	92.30
Bilingual - Bilingual	Bilingual	11	-	96.88
Comp Time Earned - Com	Compensatory Time Earned	12	95.81	224.19
Comp Time Taken - Comp	Compensatory Time Taken	1	2.00	47.44
Correction - Correction	Correction	1	-	244.53
Holiday - Holiday Pay	Holiday Pay	32	223.42	6,058.57
Holiday - Reg - Holiday - R	Holiday - Regular	18	202.03	5,553.94
Hourly - Hourly	Hourly	102	6,026.62	161,966.54
Hourly - Reg - Hourly - Re	Hourly - Regular	1	3.50	83.02
Hourly - Temp - Hourly Te	Hourly Temporary Employees	4	131.00	2,558.97
Intermediate POST - Inter	Intermediate POST Certificate	6	-	83.08
K-9 Officer - K-9 Officer	K-9 Officer	2	-	36.92
Military - Military Leave W	Military Leave With Out Pay	2	-	-
Notary - Notary	Notary	1	-	13.85
OT - Overtime	Overtime	36	243.27	8,439.48
PD - Court Stand-by - PD (	PD Court Stand-by	3	15.00	700.20
PD On-Call - PD On-Call (2	PD On-Call (20)	4	83.50	2,309.24
Personal - Personal Day	Personal Day	1	12.00	338.40
PW Cert - Grade 1 - Public	Public Works Certification - Grade 1	2	-	23.16
PW Cert - Grade 3 - Public	Public Works Certification - Grade 3	2	-	69.24
Salary - Salary	Salary	2	160.00	6,428.64
Salary - Elected - Salary - I	Salary - Elected Officials	4	-	800.00
Sergeant - Sergeant	Sergeant	2	-	41.54
Sick - Sick Pay	Sick Pay	29	224.68	5,649.76
Sick - Reg - Sick - Regular	Sick - Regular	1	8.00	159.68
Transition Exp - Transitior	Transition Exp	1	1.00	5,855.00
Vacation - Vacation Pay	Vacation Pay	19	236.71	5,996.72
Workers Comp - Workers	Workers Comp Pay	1	2.00	865.22
	Report Total:	**7,682.54**		**216,001.90**

REGULAR CITY COUNCIL MINUTES
IN PERSON MEETING
February 10, 2022

MCFARLAND CITY COUNCIL
MCFARLAND SUCCESSOR AGENCY
MCFARLAND PUBLIC FINANCE AUTHORITY
MCFARLAND IMPROVEMENT AUTHORITY
MCFARLAND PARKING AUTHORITY

CALL TO ORDER

Mayor Tafoya called the meeting to order at 6:01 p.m.

ROLL CALL

Councilmembers Present: Mayor Tafoya, Mayor Pro-Tem Pérez, Councilmember Ayon, Councilmember Cano

Councilmembers Absent: None

OFFICIALS PRESENT

Chief of Police/City Manager Williams, Assistant City Manager Cosentini, Interim City Attorney Hodges, Interim Community Development Director Ronk, Public Works Director Gonzales, City Clerk Alvarado, Accounting Supervisor Lara

Officials Absent: None

INVOCATION

Councilmember Cano

PLEDGE OF ALLEGIANCE

Mayor Pro-Tem Pérez

PRESENTATIONS AND PROCLAMATIONS

None

PUBLIC COMMENTS

None – Closed 6:03 p.m.

CONSENT AGENDA

1. Motion was made by: Councilmember Ayon to approve Expense Report in the Amount of ***$222,503.24*** from January 01, 2022 Through January 15, 2022 2nd by: Councilmember Cano.

   Vote: 4/0
   Ayes: Ayon, Cano, Pérez, Tafoya (Mayor)
   Nays: None
   Absent: None
   Abstentions: None

2. Motion was made by: Councilmember Ayon to approve Payroll Register in the Amount of ***$244,365.12*** for January 2022; 2nd by: Councilmember Cano.
   Vote: 4/0
   Ayes: Ayon, Cano, Pérez, Tafoya (Mayor)
   Nays: None
   Absent: None
   Abstentions: None

3. Motion was made by: Councilmember Ayon to approve January 27, 2022 Regular Meeting Minutes; 2nd by: Councilmember Cano.
   Vote: 4/0
   Ayes: Ayon, Cano, Pérez, Tafoya (Mayor)

Nays: None
Absent: None
Abstentions: None

PUBLIC HEARINGS

4. Motion was made by: Councilmember Ayon to approve Second Reading and Adoption of ***Ordinance No. 0002-2022*** Amending and Restating MCFARLAND MUNICIPAL CODE CHAPTERS 1.08.010, 2.04.010, and 2.04.020; Governing Agenda Meetings Date, Time, Location and Postings; 2nd by: Councilmember Cano.

a. Opened Public Hearing and Receive Public Testimony: 6:04 p.m. *No Comments were made.*
Closed Public Hearing: 6:04 p.m.

b. Motion was made by Councilmember Ayon to Waive the Reading of the Ordinance Text in Its Entirety, Read by Title Only, ***Ordinance No. 0002-2022***, AN ORDINANCE OF THE CITY OF MCFARLAND AMENDING CHAPTERS 1.08.010, 2.04.010, and 2.04.020 MCFARLAND MUNICIPAL CODE; 2nd by: Councilmember Cano
Vote: 4/0
Ayes: Ayon, Cano, Pérez, Tafoya (Mayor)
Nays: None
Absent: None
Abstentions: None

c. Mayor Tafoya Directed Staff to within 15 days of its Passage publish in at Least Three Public Places in the City.

5. Second Reading and Adoption of ***Ordinance No. 0003-2022*** Amending and Restating McFarland Municipal Code Amending Title 17, Chapters 17.04.340, 17.04.350, Repealing Subsection "C" of Chapter 17.12.020, and Adding Chapter 17.153 of the McFarland Municipal Code Governing Home Occupation Permit Ordinance.

a. Opened Public Hearing and Receive Testimony: 6:05 p.m. *No Comments were made*.
Closed Public Hearing: 6:05 p.m.

b. Motion was made by: Mayor Pro Tem Pérez to Waive the Reading of the Ordinance Text in Its Entirety, Read by Title Only ***Ordinance No. 0003-2022*** AN ORDINANCE OF THE CITY OF MCFARLAND AMENDING TITLE 17, CHAPTERS 17.04.340, 17.04.350, REPEALING SUBSECTION "C" OF CHAPTER 17.12.020, AND ADDING CHAPTER 17.153 OF THE MCFARLAND MUNICIPAL CODE; 2nd by: Councilmember Cano.
Vote: 4/0
Ayes: Pérez, Cano, Ayon, Tafoya (Mayor)
Nays: None
Absent: None
Abstentions: None

c. Mayor Tafoya directed Staff to Within 15 days of its Passage Publish in at Least Three Public Places in the City.

ADMINISTRATIVE AGENDA

6. Report, Discuss and Update the Subcommittee List. *Council assigned new members to the subcommittees and updated the list. Mayor Tafoya instructed staff make agendas for each subcommittee*.

7. Report, Discussion, and Possible Approval of Budget Increase to Compensate for a Part-Time (29 Hour) Code Enforcement Officer, and Direct Staff to Draft a Resolution Appropriating a Budget Increase for the Funds Needed. *Mayor Tafoya Directed staff to draft resolution and bring back to council for approval*.

REPORTS FROM CITY COUNCIL ON COMMITTEE/SPECIAL DISTRICT MEETINGS

- **a.** Delano Mosquito Abatement District (DMAD)
- **b.** Kern Council of Governments (KCOG)
- **c.** Kern Economic Development Corp. (KEDC)
- **d.** Kern County Association of Cities (KCAC)
- **e.** Poso Creek (IRWMP)

COUNCIL STATEMENTS AND REPORTS

CLOSED SESSION

None

ADJOURNMENT

Meeting adjourned at 6:23 p.m.

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Francisca Alvarado, City Clerk

REGULAR CITY COUNCIL MINUTES
IN PERSON MEETING
March 24, 2022

MCFARLAND CITY COUNCIL
MCFARLAND SUCCESSOR AGENCY
MCFARLAND PUBLIC FINANCE AUTHORITY
MCFARLAND IMPROVEMENT AUTHORITY
MCFARLAND PARKING AUTHORITY

CALL TO ORDER

Mayor Tafoya called the meeting to order at 6:00 p.m.

ROLL CALL

Councilmembers Present: Mayor Tafoya, Mayor Pro-Tem Pérez, Councilmember S. Ayon, Councilmember Cano, Councilmember A. Ayon

Councilmembers Absent: None

OFFICIALS PRESENT

Chief of Police/City Manager Williams, Assistant City Manager Cosentini, Interim City Attorney Hodges, Interim Community Development Director Ronk, Public Works Director Gonzales, City Clerk Alvarado, Accounting Supervisor Lara

Officials Absent: None

INVOCATION

Councilmember Cano

PLEDGE OF ALLEGIANCE

Councilmember A. Ayon

PRESENTATIONS AND PROCLAMATIONS

- Certificates of Recognition to the Following Players: ***Annika Fernandez, Alexandria Hernandez, Jasmine Contreras, Lindzee Garza, Olivia Samaniego, Mia Samaniego, Sarah Lopez, Emily Lopez, Delilah Cervantes, Mari Gonzalez, and Savanna Carrillo*** on behalf of ***Councilmember Saul Ayon***.

- Certificate of Recognition to the ***McFarland Girls Basketball Team***: Coach, and Assistant Coaches***: Johnny Samaniego, Alyssa Medina, and Geno Barajas*** on behalf of ***Councilmember Saul Ayon***.

- Certificate of Recognition to ***McFarland High School VEX Robotics Coach David Cisneros*** on behalf of ***Councilmember Saul Ayon***. (VEX Robotics Coach David Cisneros was not present)

PUBLIC COMMENTS

1. ***Yesenia Aguilar – Office of Assemblymember Rudy Salas presented certificates of recognition to the McFarland Girls Basketball Team and Couches.***

2. ***Mayela Bujanda- Medina & David Diaz- McFarland Festival Committee- invited the community and council to the upcoming 5 de Mayo Festival from April 28 till May 1, 2022.***

CONSENT AGENDA

1. Motion was made by: Mayor Pro Tem Pérez to approve the Expense Report in the Amount of ***$361,060.68*** from March 1, 2022 to March 15, 2022; 2nd by: Councilmember Cano.
Vote: 5/0
Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
Nays: None
Absent: None
Abstentions: None

2. Motion was made by: Mayor Pro Tem Pérez to approve February 24, 2022 Regular Meeting Minutes; 2nd by: Councilmember Cano.
   Vote: 5/0
   Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
   Nays: None
   Absent: None
   Abstentions: None

3. Motion was made by: Mayor Pro Tem Pérez to approve March 10, 2022 Regular Meeting Minutes; 2nd by: Councilmember Cano.
   Vote: 5/0
   Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
   Nays: None
   Absent: None
   Abstentions: None

4. Motion was made by: Mayor Pro Tem Pérez to approve March 16, 2022 Special Meeting Minutes; 2nd by: Councilmember Cano.
   Vote: 5/0
   Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
   Nays: None
   Absent: None
   Abstentions: None

PUBLIC HEARINGS

None

ADMINISTRATIVE AGENDA

5. Motion was made by: Councilmember S. Ayon to Approve ***Resolution No. 2022-0015***, A RESOLUTION OF THE CITY OF MCFARLAND, CALIFORNIA, ESTABLISHING A CITY COUNCIL COMMITTEE TO REVIEW EUTHANASIA CASES AND MAKE DECISIONS ON EUTHANIZING; 2nd by: Councilmember A. Ayon.
   Vote: 5/0
   Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
   Nays: None
   Absent: None
   Abstentions: None

6. Motion was made by: Councilmember Cano to approve Amendment to Agreement with De Lapide & Associates, Inc to conduct a Housing Element Update; 2nd by: Councilmember S. Ayon.
   Vote: 5/0
   Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
   Nays: None
   Absent: None
   Abstentions: None

7. Motion was made by: Councilmember S. Ayon to approve ***Resolution No. 2022-0016***, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND, SUBMITTING TO CITY VOTERS AT THE NEXT REGULAR MUNICIPAL ELECTION TO BE HELD NOVEMBER 8, 2022, A BALLOT MEASURE TO ADOPT AN ORDINANCE APPROVING TRANSACTIONS AND USE GENERAL TAX TO BE ADMINISTERED BY THE CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION AND REQUESTING THAT THE BOARD OF SUPERVISORS CONSOLIDATE THAT ELECTION WITH THE STATEWIDE ELECTION AND REGULAR MUNICIPAL ELECTION HELD ON THAT SAME DATE; 2nd by: Mayor Pro Tem Pérez.
   Vote: 5/0
   Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
   Nays: None
   Absent: None
   Abstentions: None

8. Motion was made by: Councilmember A. Ayon to Approve ***Resolution No.2022-0017*** A RESOLUTION OF THE CITY OF MCFARLAND, CALIFORNIA, ESTABLISHING CITY

COUNCIL COMMITTEES TO BE CONSOLIDATED INTO THREE COMMITTEES; 2nd by: Councilmember Cano.
Vote: 5/0
Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
Nays: None
Absent: None
Abstentions: None

9. Motion was made by: Councilmember Cano to Approve Letter of Engagement with Lisa Tucker of A1 Multi Business Center Inc. to Assist with 2020-2021 Bank Reconciliations and Other Accounting Services for Audit; 2nd by: Councilmember S. Ayon.
Vote: 5/0
Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
Nays: None
Absent: None
Abstentions: None

10. Motion was made by: Mayor Pro Tem Pérez to Approve ***Resolution No. 2022-0018***, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND TO ALLOW CITY COUNCIL MEETINGS TO BE HELD REMOTELY, CONSISTENT WITH ASSEMBLY BILL 361 RECOMMENDATION; 2nd by: Councilmember Cano.
Vote: 5/0
Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
Nays: None
Absent: None
Abstentions: None

11. Motion was made by: Councilmember S. Ayon to Approve Memorandum of Understanding between the City of McFarland and Recreation and Parks District; 2nd by: Councilmember A. Ayon.
Vote: 5/0
Ayes: Pérez, Cano, S. Ayon, A. Ayon, Tafoya (Mayor)
Nays: None
Absent: None
Abstentions: None

REPORTS FROM CITY COUNCIL ON COMMITTEE/SPECIAL DISTRICT MEETINGS

a. Delano Mosquito Abatement District (DMAD) – Ricardo Cano
b. Kern Council of Governments (KCOG)- Mayor Tafoya or Mayor Pro-Tem Pérez
c. Kern Economic Development Corp. (KEDC) – Mayor Tafoya or Mayor Pro-Tem Pérez
d. Kern County Association of Cities (KCAC)
e. Poso Creek (IRWMP)- Councilmember Ayon
f. Ken Local Agency Formation Commission (LAFCO) – Councilmember Ayon

COUNCIL STATEMENTS AND REPORTS

CLOSED SESSION

1. Public Employment (Government Code §54957) - Title: Finance Director- No Reportable Action

ADJOURNMENT

Meeting adjourned at 6:47 p.m.

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Francisca Alvarado, City Clerk

MEMORANDUM
CITY OF MCFARLAND

TO: Honorable Mayor and City Council Members

FROM: Kenny Williams, City Manager
Larry A Ronk III, Interim Community Development Director

DATE: April 14, 2022

SUBJECT: Report, Discussion, and Possible Approval of Resolution No. 2022-0019 adopting McFarland Urban Water Management Plan 2020.

BACKGROUND:

The City of McFarland has received a $250,000.00 grant from Sustainable Agricultural Lands Conservation for multiple studies including an Urban Water Management Plan to be developed to be in compliance with the state. The City is being pro-active and wanting to accomplish this study prior to being required due to the amount of water meter services a City may have without one. The threshold for this study to be required is 3000 and the City is right below that amount.

The city must be in compliance with the state and Dee Jaspers has created a Urban Water Management Plan for adoption that will make the City of McFarland compliant for years to come. This plan will plan the management of water usage throughout the city and all future development. It includes information that creates the guidelines and necessities the city will need to conduct to sustain as a city with new development.

There was a review period of sixty (60) days for all entities to comment. It was published in the paper, posted on our city website, mailed to the state required entities, and available at city hall for any entity for review.

RECOMMENDATION:

Staff recommends the City of McFarland City Council approve Resolution No. 2022-0019 adopting the McFarland Urban Water Management Plan 2020.

FISCAL IMPACT:

Sustainable Ag Land Conservation Planning Grant 100% funded.

Attachments:

Urban Water Management Plan 2020
Resolution No. 2022-0019
Public Hearing Notice

City of McFarland Urban Water Management Plan

2020 Update

Prepared by:

DEE JASPAR & ASSOCIATES, INC.

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Acronyms and Abbreviations

%	Percent
20x2020	20% water use reduction in GPCD by year 2020
Act	Urban Water Management Planning Act of 1983
AF	Acre-Feet
AFY	Acre-Feet per Year
AWWA	American Water Works Association
BMP	Best Management Practice
City	City of McFarland
DAC	Disadvantaged Communities
DMM	Demand Management Measure
DRA	Drought Risk Assessment
DWR	Department of Water Resources
ERP	Emergency Response Plan
FY	Fiscal Year
GPCD	Gallons per Capita per Day
gpf	Gallons per Flush
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
GWRS	Groundwater Replenishment System
kWh	Kilowatt-Hour
MAF	Million Acre-Feet
MCL	Maximum Containment Level
MG	Million Gallon
MGY	Million Gallons per Year
MGD	Million Gallons per Day
MHI	Median Household Income

PPB	Parts Per Billion
PPT	Parts Per Trillion
PSA	Public Service Announcement
RUWMP	Regional Urban Water Management Plan
SBx7-7	Senate Bill 7 as part of the Seventh Extraordinary Session
SGMA	Sustainable Groundwater Management Act
SJVAPCD	San Joaquin Valley Unified Air Pollution Control District
SSJMUD	Southern San Joaquin Municipal Utility District
SWID	Shafter Wasco Irrigation District
SWP	State Water Project
SWRCB	California State Water Resources Board
TDS	Total Dissolved Solids
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan
WUO	Water Use Objective

Executive Summary

Introduction and UWMP Overview

The City of McFarland (City) prepared this 2020 Urban Water Management Plan (UWMP) to submit to the California Department of Water Resources in order to satisfy the UWMP Act of 1983 and subsequent California Water Code requirements. The City is a retail water supplier, providing water obtained solely from its groundwater supplies to its residents.

This is the City's first UWMP. UWMPs are comprehensive documents that present an evaluation of a water supplier's reliability over a long-term (20-25 year) horizon. This UWMP provides an assessment of the present and future water supply sources and demands within the City's service area. This UWMP will present a water reliability assessment, a Drought Risk Assessment (DRA), and a Water Shortage Contingency Plan (WSCP) which will help the City prepare for the future events of water shortages.

UWMP Preparation

In the preparation of this UWMP, the City coordinated with the Kern Groundwater Authority and the Southern San Joaquin Municipal Utility District (SSJMUD).

System Description

The City of McFarland, located within Kern County, was incorporated in July 1957. The City provides water, sewer collection, wastewater treatment, storm drainage, road, and refuse service to the community. The system currently consists of 3 active groundwater wells with a storage tank and a booster-pump station. The City operates and maintains its groundwater pumping facilities as well as its water distribution system.

Water Use Characterization

Water use within the City has in general decreased since 2013, with an annual average of 551 MG per year over the period from 2013 to 2019. For the year 2020, the City's water use was 473 MG of municipal water. By utilizing the land-based gallons per capita per day (GPCD) calculation, the GPCD for 2020 was calculated to be 96 GPCD. The City does not have any recycled or non-potable water utilization within its service area.

5-Year and 20-Year Water Use Projections

Water Use in 2025 is expected to increase 18 percent to 556 MG by the year 2025, and to 774 MG by the year 2040, which is a 64 percent increase in water usage. These calculations take into account projected future population, demographics,

housing stocks, general increase in water use efficiency, and total municipal water service connections.

Conservation Target Compliance

Retail suppliers who prepare a UWMP are required to comply with the Water Conservation Act of 2009, also known as SBx7-7, which was signed into law in 2010. This law requires the State of California to reduce urban water use by 20% by the year 2020 when using the year 2013 as a baseline.

Since this is the City's first UWMP, the City prepared a SBx7-7 Verification and Compliance Form, submitted with this UWMP. It was established that the City met its 2020 water use target and thus was in compliance with SBx7-7. The actual 2020 consumption was 82 GPCD and the target GPCD was 123 GPCD.

Water Supply Characterization

The City meets all of its water demands through its use of groundwater wells. Groundwater is the sole source of water supply for the City. This groundwater supply has always been sufficient to meet the City's water demands. While there are no current plans to change the source of the City's water, more groundwater wells are planned to be drilled in order to maintain a water supply that is sufficient to meet the City's water demand.

Water Service Reliability Assessment and Drought Risk Assessment

A major function of this UWMP is demonstrate that the City has adequate water service reliability and is prepared for drought conditions. The City must establish whether it has the ability to meet the needs of the City even during a significant 5-year long extended drought.

For the water service reliability assessment – based on historical data and future projections, the City assessed the future water reliability and its ability to meet the demands of its customers through 2040 during normal, single-dry, and multiple-dry years.

For the DRA, with respect to historical data and future projections, it was established that the City could provide water to its customers even during a 5-year prolonged drought.

Water Shortage Contingency Planning

The Water Shortage Contingency Plan (WSCP) is a strategic process—and a stand-alone document—which helps the City prepare for any sort of water shortage. A water shortage may occur for a myriad of reasons, and it is the responsibility of the WSCP and the City's Emergency Response Plan (ERP) to manage any water shortage.

The WSCP provides for a real-time water supply availability assessment and has measured stages designed to respond to different levels of water shortage.

Demand Management Measures

The City recognizes the need to use its existing water resources in an efficient manner. The City has developed and are implementing plans related to water use prevention, installing water meters, using a water conservation pricing schedule, and utilizing different public education and outreach methods.

Plan Adoption, Submittal, and Implementation

The Water Code requires this UWMP to be adopted by the City of McFarland. Before this UWMP is adopted, the City notified the public and other interested parties as per the Water Code and also held a public hearing to receive input from the public. Post adoption of this UWMP, the City submitted the UWMP to the DWR and other key agencies and made this document available for public review no later than 30 days after filing with DWR.

1 UWMP Introduction and Lay Description

1.1 Purpose and Summary

This is the 2020 Urban Water Management Plan (UWMP) for the City of McFarland (City), prepared in accordance with the Urban Water Management Planning Act (Act) that was enacted in 1983, by the State of California Legislature (Legislature). The law requires an urban water supplier (Supplier), providing water for municipal purposes to more than 3,000 customers or serving more than 3,000 acre-feet annually, to adopt an UWMP every five years that demonstrates water supply reliability in normal, single dry, and multiple dry water years. The Act also requires that the California Department of Water Resources (DWR) provide a report to the California Legislature on the status of water supply planning in California. The UWMP must describe the water supplier's service area, water demands and supplies, water conservation activities, and assess the reliability of water sources over a 20-year planning time frame.

This is the City of McFarland's first UWMP. Although the City does not have more than 3,000 service connections or serve more than 3,000 acre-feet of water annually, the City opted to submit a UWMP. The City supplies potable water to a population of approximately 15,800[1] as of 2020. The City's sole source of potable water is pumped from groundwater wells that are owned and operated by the City.

This UWMP provides an assessment of the present and future water supply sources and demands within the City's service area. It is the City's first UMWP and contains all the elements to comply with the new requirements of the Act as amended since 2015 in accordance with the UWMP 2020 Final Guidebook.

There are several new elements in the 2020 UWMP that are included as required per the most recent amendments to the Act as follows:

- **Five Consecutive Dry-Year Water Reliability Assessment** - The Legislature modified the dry-year water reliability planning from a "multiyear" time period to a "drought lasting five consecutive water years" designation. This statutory change requires a Supplier to analyzer the reliability of its water supplies to meet its water use over an extended drought period.
- **Drought Risk Assessment** – The California Legislature created a new UWMP requirement for drought planning in part because of the significant duration of recent California droughts and the predictions about hydrological

[1] Estimated from US Census Data

variability attributable to climate change. The DRA requires a Supplier to assess water supply reliability over a five-year period from 2021 to 2025 that examines water supplies, water uses, and the resulting water supply reliability under a reasonable prediction for five consecutive dry years.

- **Seismic Risk** – The Water Code now requires Suppliers to specifically address seismic risk to various water system facilities and to have a mitigation plan.
- **Energy Use Information** – The Water Code now requires Suppliers to include readily obtainable information on estimated amounts of energy for their water supply extraction, treatment, distribution, storage, conveyance, and other water uses. The reporting of this information was previously voluntary in 2015.
- **Water Loss Reporting for Five Years** – The Water Code added the requirement to include the past five years of water loss audit reports as part of this UWMP.
- **Water Shortage Contingency Plan** – In 2018, the Legislature modified the UWMP laws to require a WSCP with specific elements. The WSCP is a document that provides a Supplier with an action plan for a drought or catastrophic water supply shortage.
- **Groundwater Supplies Coordination** – In 2014, the Legislature enacted the Sustainable Groundwater Management Act (SGMA) to address groundwater conditions throughout California. The Water Code now requires Suppliers' 2020 UWMP's to be consistent with Groundwater Sustainability Plans (GSP), in areas where those plans have been completed by Groundwater Sustainability Agencies (GSA).
- **Lay Description** – The Legislature included a new statutory requirement for Suppliers to include a lay description of the fundamental determinations of the UWMP, especially regarding water service reliability, challenges ahead, and strategies for managing reliability risks. This section of the UWMP could be viewed as a go-to synopsis for new staff, new governing members, customers, and the media, and it can ensure a consistent representation of the Supplier's detailed analysis.

1.2 UWMP Organization

This UWMP is organized into 10 Sections in congruence with the DWR Guidebook recommendations as follows:

Section 1 – UWMP Introduction and Lay Description provides an overview with brief descriptions of the new additional requirements by the Legislature in 2020,

including the new requirement to provide a lay description of the fundamental determinations of the UWMP.

Section 2 – Plan Preparation provides a description of the processes used for developing the UWMP, including efforts in coordination and outreach.

Section 3 – System Description provides a background on the City and its climate, population projections, demographics, socioeconomics, and current and projected land uses within the water system service area.

Section 4 – Water Use Characterization provides historical, current, and projected water demand within the Supplier's service area.

Section 5 – Conservation Target Compliance describes the Supplier's compliance with the 2020 per-capita water conservation mandate, showing the baseline and target water use calculations in accordance with the Water Conservation Act (SB X7-7) passed in 2009 by the State Legislature.

Section 6 – Water Supply Characterization provides current and projected potable and non-potable water supplies along with a description of each supply source.

Section 7 – Water Service Reliability and Drought Risk Assessment (DRA) evaluates the reliability of the City's water supply service to its customers through a 20-year projection, based on a normal year, single dry year, and five consecutive dry years and also includes the DRA.

Section 8 – Water Shortage Contingency Plan provides a structured plan for dealing with water shortages, incorporating prescriptive information and standardized action levels, along with implementation actions in the event of a catastrophic water supply interruption.

Section 9 – Demand Management Measures provides a description of the City's current and planned measures and programs to help customers in its service area comply with the Water Conservation Act.

Section 10 – Plan Adoption, Submittal, and Implementation provides a description of the process the City followed to adopt and implement the UWMP.

2 Plan Preparation

The City of McFarland prepared this UWMP during the summer of 2021, and the plan was presented to the City Council in September of 2021 for review and comment. Modifications were made to the UWMP in accordance with the comments received and the UWMP was then approved and adopted by the City Council. The UWMP was prepared in coordination with appropriate City departments including the Water Department, Public Works Department, Planning Department and the City Manager's Office in a transparent manner that provided for public involvement opportunities to allow stakeholders and the public to submit comments and suggest revisions to the Supplier's plan.

2.1 Individual Planning and Compliance

While the City prepared its own UWMP individually, the development of the new UWMP involved coordination with other key entities within the region and copies of this plan have been forwarded to the Kern County Water Agency and the Southern San Joaquin Municipal Utility District for their review and comment.

Table 2-1 Public System Water Profile

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
Add additional rows as needed			
CA1510013	City of McFarland	2,849	453
	TOTAL	2,849	453
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: Volume in MG			

Table 2-2 - Plan Identification

Submittal Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* (select from drop down list)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Table 2-3 - Supplier Identification

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables are in calendar years
☐	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP * (select from drop down)	
Unit	MG
** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

2.2 Coordination and Outreach

The City of McFarland coordinated with other key entities in the preparation of this UWMP including: the Kern County Water Agency, the Kern Groundwater Authority, and the Southern San Joaquin Municipal Utility. However, it should be noted, that the City does not receive water supply from any wholesalers.

The City held a public hearing and notified key entities and the public per the Water Code requirements in order to actively engage with diverse social, cultural, and economic elements of the population within the City of McFarland during the preparation of this Plan. In addition, 60 days prior to the public hearing, the City provided notice to the County of Kern and other appropriate agencies that the City would be reviewing the plan and considering amendments or changes to the plan.

Table 2-4 - Water Supplier Information

Submittal Table 2-4 Retail: Water Supplier Information Exchange
The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631.
Wholesale Water Supplier Name
Add additional rows as needed
NOTES: Not applicable, as the City is not a wholesale supplier.

3 System Description

This section provides information on McFarland's service area, including a description of the system, a description and map of the water system service area, and details about its population and climate.

3.1 General Description of Service Area

The City of McFarland, incorporated in July 1957, provides water, sewer collection, wastewater treatment, storm drainage, road, and refuse service to the community. The system currently consists of three (3) active groundwater wells with a storage tank and a booster-pump station. The Browning Well facility is in the northeast corner of McFarland, the Well No.6 Facility is in northwest corner, the Garzoli Well Facility in the west, and the 1 MG storage tank and booster pump facility is near the center of town west of State Highway 99. The McFarland Mutual Water Company operated and maintained the water system within the City until 2000. At that time the District's assets were transferred to the City.

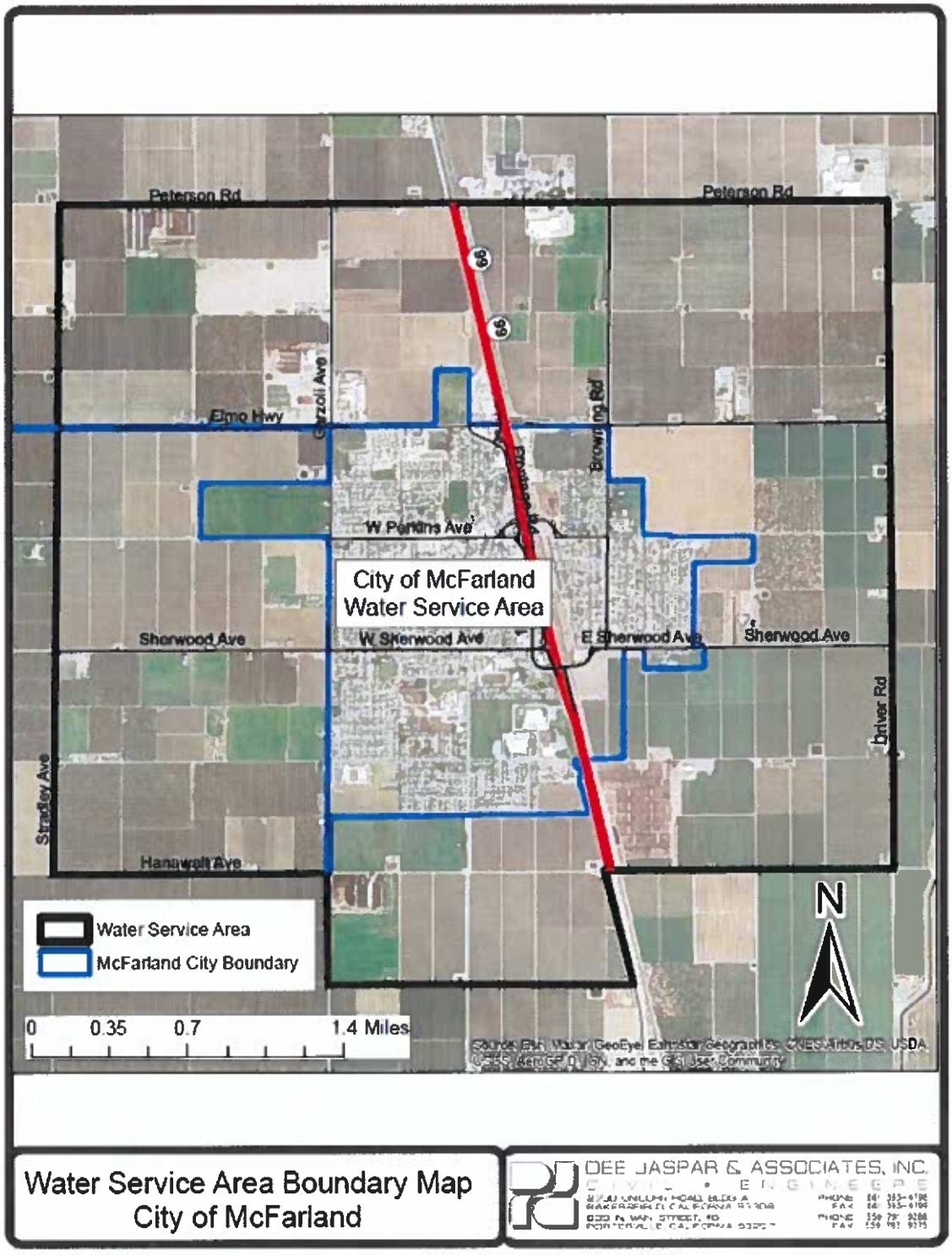
The water service is primarily domestic with some commercial and industrial and landscape irrigation customers. Meters have been installed on all service connections. The City of McFarland does not provide water for irrigating agricultural commercially grown crops.

3.2 Water Service Area Boundary Map

The current service area includes all of the City of McFarland which is an area of approximately 3.0 square miles and is located about 25 miles north of Bakersfield and 7 miles south of the City of Delano in Kern County.

Figure 3-1 illustrates the current water system service area boundary.

Figure 3-1 - City of McFarland Water Service Area



3.3 Service Area Climate

McFarland's service area is located within the San Joaquin Valley Unified Air Pollution Control District which encompasses all of the City of McFarland and the westerly portion of Kern County. McFarland has a cold semi-arid climate with hot, dry summers and cool winters.[2]

Water usage is greatly influenced by local rainfall and temperature in the service area. In McFarland, the average high temperature ranges from 97.3° F in July to an average low of 56.0° F in December (Table 3-1). The average precipitation is 7.51 inches (Table 3-2) while the average evapotranspiration (ETo) is estimated to be between 58-65 inches per year (Tables 3-3 – 3-5) which is greater than eight times the annual average rainfall. Typically, the rain season extends from November through April. Tule fog is common in the winter, sometimes lasting for extended periods. Prevailing winds are typically out of the northwest and average from 5 to 10 miles per hour. The following five tables provide climate data for the City of McFarland, including average maximum and minimum temperatures, average rainfall, and average evapotranspiration (ETo).

Table 3-1 - McFarland 30-Year Average Temperature

Average Temperature Climate Data for McFarland, California (1990-2020)[3]													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg.
Average High (°F)	56.0	62.8	69.2	75	83.1	92.2	97.3	96.5	90.7	79.6	66.3	57.2	77.2
Average Low (°F)	37.7	40.9	44.8	49.1	55.5	61.8	67.6	65.5	61.6	52.6	42.5	36.7	51.4

[2] According to Koppen Climate Classification System

[3] Data from closest NOAA Weather Station (No. USC00042346) in Delano, CA (6.9 miles from McFarland)

Table 3-2 - Precipitation Climate Data

Precipitation Climate Data for McFarland, California (1990-2020)[4] (inches)													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Average Rainfall (inches)	1.4	1.3	1.4	0.6	0.4	0.1	0.0	0.0	0.0	0.4	0.7	1.2	7.51

Table 3-3 - Standard Monthly Average Evapotranspiration (ETo)

Standard Monthly Average Evapotranspiration (ETo)													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Monthly Average ETo (in)[5]	1.24	2.24	3.72	5.70	7.44	8.1	8.68	7.75	5.7	4.03	2.1	1.24	57.9

Table 3-4 - Measured Monthly Evapotranspiration (ETo) June 2020-May 2021

Measured Monthly Evapotranspiration (ETo) June 2020-May 2021													
Month	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year
Delano[6] Monthly ETo (in)	8.29	8.62	7.36	5.23	3.86	2.1	1.51	1.80	2.64	4.25	6.04	7.87	59.57
Shafter[7] Monthly ETo (in)	8.67	9.38	8.16	5.8	4.37	2.38	1.84	2.13	3.02	4.69	6.54	8.58	65.56

Below is a table comparing the measured ETo values for Delano and Shafter with the CIMIS Reference ETo values according to the reference zone for the City, Zone "15."

[4] Data from closest NOAA Weather Station (No. USC00042346) in Delano, CA (6.9 miles from McFarland)

[5] CIMIS Monthly Average EvapoTranspiration Data

[6] CIMIS Monthly Report from Delano Station (CIMIS Station 182)

[7] CIMIS Monthly Report from Shafter Station (CIMIS Station 5)

Table 3-5 - Comparison Table of ETo Values from Delano, Shafter, and Average CIMIS ETo for Zone 15

Comparison of Monthly Evapotranspiration (ETo) June 2020-May 2021 vs Avg. CIMIS ETo for Zone 15													
Month	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year
Delano[8] Monthly ETo (in)	8.29	8.62	7.36	5.23	3.86	2.1	1.51	1.80	2.64	4.25	6.04	7.87	59.57
Shafter[9] Monthly ETo (in)	8.67	9.38	8.16	5.8	4.37	2.38	1.84	2.13	3.02	4.69	6.54	8.58	65.56
Monthly Avg. ETo (in)[10]	8.1	8.68	7.75	5.7	4.03	2.1	1.24	1.24	2.24	3.72	5.7	7.44	57.9

3.4 Population, Demographics, and Socioeconomics

3.4.1 Service Area Population

The City of McFarland as of 2020 currently serves an estimated total population of 15,800[11] residents. The population in McFarland is estimated to increase to 23,690 in 2040 with an estimated annual growth rate of 2.42 percent through 2040.[12]

[8] CIMIS Monthly Report from Delano Station (CIMIS Station 182)

[9] CIMIS Monthly Report from Shafter Station (CIMIS Station 5)

[10] CIMIS Monthly Average EvapoTranspiration Data

[11] Extrapolated from US Census Data

[12] Table 3-1, McFarland General Plan 2040 (May 2021 Update).

Table 3-6 – Retail: Population - Current and Projected

Submittal Table 3-1 Retail: Population - Current and Projected[13]					
Population Served	2020	2025	2030	2035	2040
	15,800	16,661	18,770	21,121	23,690
NOTES:					

The "Business as Usual" growth model from the City's 2040 General Plan is presented in the table above. The "Business as Usual" growth model is a future growth strategy that is consistent with previous growth trends and strategies. The City of McFarland General Plan 2040 (May 2021 Update) provides other growth models for the City projected through the year 2040. However, for the purpose of this report, previous growth trends will be taken into account in projecting the future water demands, i.e., the "Business as Usual" growth model will be utilized. Throughout this report, statistics related to this model will be utilized.

3.4.2 Demographics and Socioeconomics

As McFarland is primarily a farming town, this affects their economy, housing, and demographics, which in turn has an impact on the water management planning for the City. The different factors are itemized and discussed below.

3.4.2.1 Economic Factors

The Median household income for McFarland was estimated to be $35,346, the poverty level is estimated to be around 32.4 percent, and the unemployment level to be 13-14 percent.

Table 3-7 - Median Household Income (2019)

Median Household Income (2019)[14]			
Location	McFarland	Kern County	California
Household Income (USD)	$35,346	$53,350	$75,235

[13] City of McFarland General Plan 2040 (May 2021 Update)

[14] US Census Data 2019 Estimates

Table 3-8 - Poverty Level

Poverty Level (2019)[15]			
Location	McFarland	Kern County	California
Poverty Level (%)	32.4%	19.0%	11.8%

Table 3-9 - Unemployment Levels

Unemployment Levels (2019)[16]			
Location	McFarland	Kern County	California
Unemployment Level (%)	9.9%	7.7%	4.04%

3.4.2.2 Housing Factors

As of 2017, the City has a housing stock of 3,080 units.[17] The City expects continued residential and commercial growth. In accordance with growth model discussed in Section 3.4.1, an additional 4,500 housing units will be needed by 2040 to accommodate McFarland's estimated population growth. This is estimated to result in a total housing stock of 7,580 housing units.[18] This housing unit need was calculated from the household formation method, assuming a 5 percent vacancy rate. Most households are single unit homes (85.6 percent) while multi-unit homes and mobile homes take up 13.4 percent and 1 percent respectively. As the City looks to the future, with a more diversified community and increased pressure for low-income housing, there is a great demand for multi-unit housing that will be needed.[19] Additionally, it is worth noting that the average person per household figure of 4.14 is much higher than the county, state, and national average. This can be seen in Table 3-10.

[15] US Census Data 2019 Estimates

[16] State of California Employment Development Department. Using 2019 levels to avoid drastic changes from the norm due to COVID-19

[17] McFarland General Plan 2040 (updated May 2021), p. 31.

[18] McFarland General Plan 2040 (updated May 2021), p. 31.

[19] City of McFarland Housing Element 2015-2023, p. 1.

Table 3-10 - Persons per Household

Persons per Household (2019)[20]				
Location	McFarland	Kern County	California	United States[21]
Persons per Household	4.14	3.17	2.95	2.53

Most of the houses in McFarland are classified as "Single-Family" Detached homes, seen in the table below.

Table 3-11 - Housing Units by Type

Housing Units by Type[22]		
Type	Number	Percent
Single-Family Detached	2,634	86%
Single-Family Attached	57	2%
Multi-Family (2-4 units)	208	7%
Multi-Family (5+ units)	98	3%
Mobile Homes, Other	70	2%
Total	3,067	100%

In 2013, 2,046 homes were inspected with respect to housing conditions, and 1,039 were deemed to need some sort of repair, and within that number 40 needed demolishing, 203 needed major repairs, and 392 needed moderate repair. The rest was considered minor. The remaining 1,007 units were deemed to be in standard conditions.[23] Roughly 50 percent of the city's housing stock was built after 1980 and of these units, 23 percent need some sort of improvements.

[20] US Census Data 2019 Estimates

[21] Statista Figure

[22] California Department of Finance, 2019 Estimates, Table E-5

[23] Kern COG Regional Housing Data Report, June 2013, p. 55

Table 3-12 - Housing Conditions

Housing Conditions – Comparison of McFarland with Bakersfield							
City	Classification	Demolition	Major	Moderate	Minor	Standard	Total
McFarland[24]	Number of Houses	40	203	392	404	1,007	2,046
	% of Total	1.96%	9.92%	19.16%	19.75%	49.22%	100%
Bakersfield[25]	Number of Houses	506	6,104	12,215	11,126	58,084	88,035
	% of Total	0.57%	6.93%	13.88%	12.64%	65.98%	100%

Table 3-13 - Housing Stock Conditions

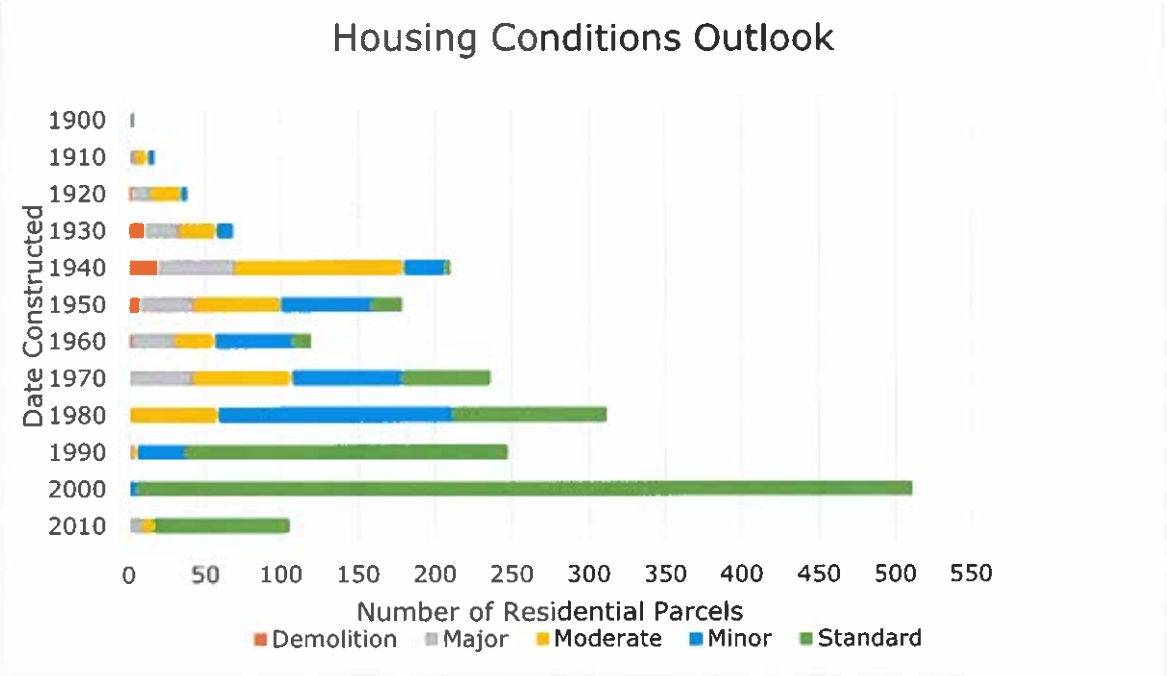
Housing Stock Conditions[26]		
Structure Condition	Number	Percent
Good	2,262	73%
Fair	754	24%
Poor	70	2%
Total	3,086	100%

[24] Data taken from Kern COG Regional Housing Data Report

[25] Data from City of Bakersfield Housing Element 2015-2023

[26] Cal Poly MCRP Studio Land Use Inventory, 2019

Figure 3-2 - Housing Conditions Outlook[27]



3.4.2.3 Age Distribution and Other Demographic Factors

In addition to the types and proportions of dwelling units, various socio-economic factors such as age distribution, education levels, and other demographic factors affect the City's water management and planning. Based on the U.S. Census Bureau's QuickFacts, 4.4 percent of the population is 65 years and over, 34.4 percent under the age of 18 years, and 8.9 percent under the age of 5 years. It is projected that the age distribution will become less skewed towards a younger demographic by 2040.[28] Approximately 52 percent of the City's population with an age of more than 25 years has a minimum of a high school diploma and 3.4 percent of this age group has a bachelor's degree or higher. For the population sector with an age of less than 65 years, 2.0 percent has a disability and 8.2 percent does not own any health insurance. One-hundred (100) percent of the developed area within the City boundary is classified as a Disadvantaged Community in accordance with SB 535.[29]

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[27] Data taken from Kern COG Regional Housing Data Report

[28] McFarland General Plan 2040 (May 2021 Update)

[29] All of the information for this paragraph and preceding two figures come from US Census Data 2019 Estimates

Figure 3-3 - Total Population Distribution

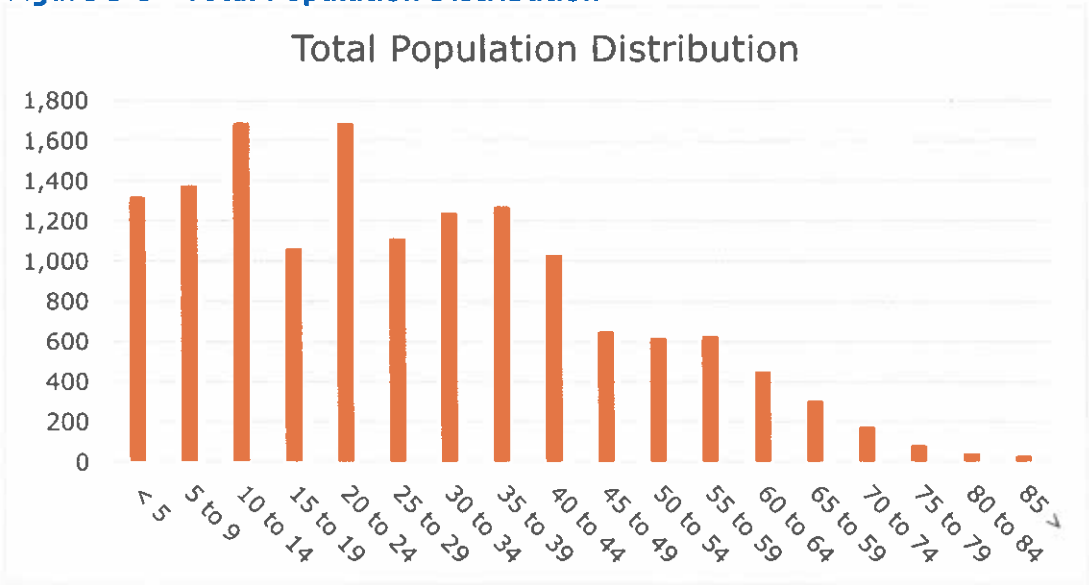
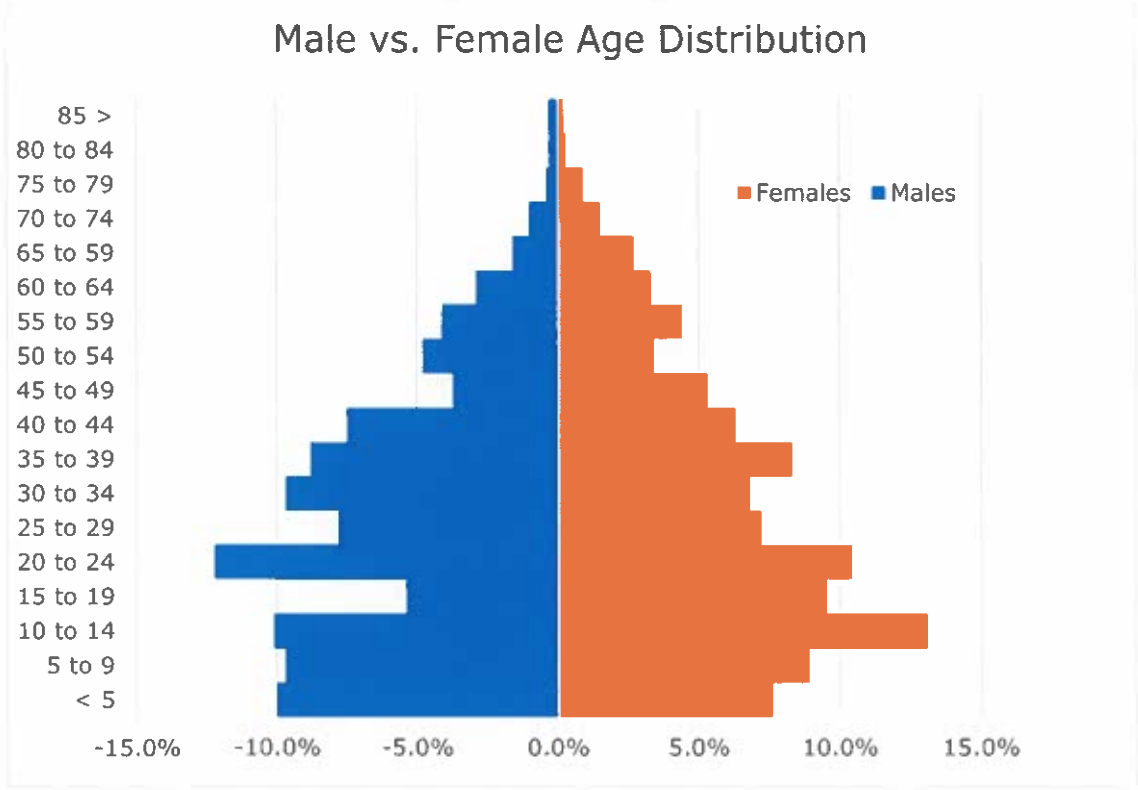


Figure 3-4 - Male vs. Female Age Distribution



In terms of language and ethnicity, 94.7 percent of the City is Hispanic, 3.4 percent white, 1.0 percent black, and 0.9 percent other.[30] It is also reported that Spanish is spoken in 80 percent of the households, while the rest of the households primarily speak English.

3.4.3 Land Uses

3.4.3.1 Current Land Uses

Most of the City of McFarland's total acreage is broken up between residential (35.81 percent), Institutional (28.61 percent), agricultural (24 percent) and open space (32.5 percent). Within the open space, only 17.62 percent of the space (6 percent of all space) is vacant. The expected growth for the City, as discussed herein, will result in the need for acquiring more land for the City.

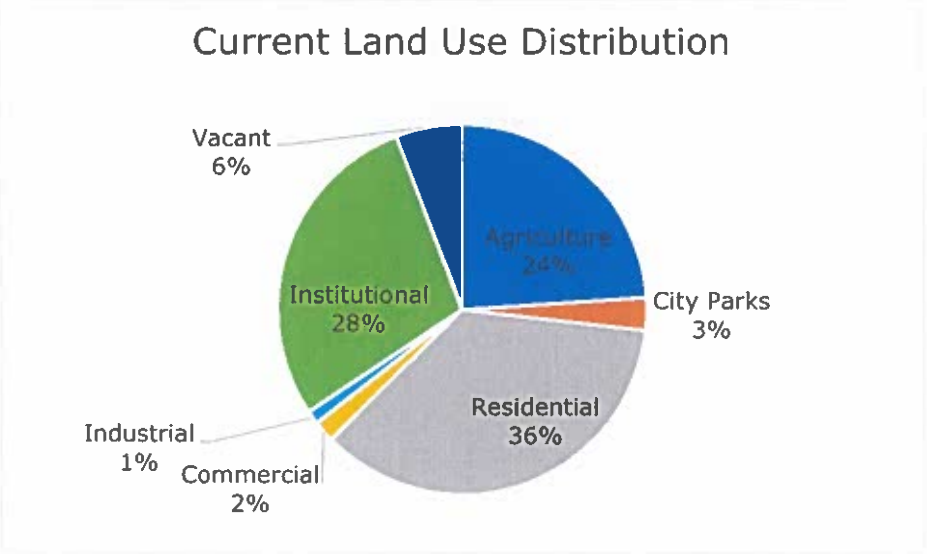
The current land use within the City's service area can be categorized as follows:

Table 3-14 - Current Land Use Distribution

Current Land Use Distribution - 2019		
Land Use	Acreage	Percent
Residential	481.24	36%
Institutional	384.52	29%
Agriculture	321.35	24%
Vacant	76.98	6%
City Parks	38.51	3%
Commercial	25.87	2%
Industrial	15.48	1%
Total	1343.95	100%

[30] Site: (https://www.california-demographics.com/mcfarland-demographics)

Figure 3-5 - Current Land Use Distribution



Below is a further breakdown of Residential Land Use, Commercial Land Use, Institutional Land Use, and Open Space Land Use.

Table 3-15 - Residential Land Use Breakdown

Residential Land Use Breakdown - 2019			
Land Use Type	Acreage	Percent	Percent of All Land
Single Family	455.15	94.58%	33.87%
Apartment	25.5	5.30%	1.90%
Mobile Home	0.59	0.12%	0.04%
Total	481.24	100.00%	35.81%

Table 3-16 - Commercial Land Use Breakdown

Commercial Land Use Breakdown - 2019			
Land Use Type	Acreage	Percent	Percent of All Land
Office	0.38	1.47%	0.03%
Retail	9.03	34.91%	0.67%
Service	16.46	63.63%	1.22%
Total	25.87	100.00%	1.92%

Table 3-17 - Institutional Land Use Breakdown

Institutional Land Use Breakdown - 2019			
Land Use Type	Acreage	Percent	Percent of All Land
Church	21.74	5.65%	1.62%
Civic/Government	5.73	1.49%	0.43%
Drainage	20.05	5.21%	1.49%
Fire	0.62	0.16%	0.05%
Police	1.47	0.38%	0.11%
Prison	62.31	16.20%	4.64%
Public Facilities	157.72	41.02%	11.74%
School	114.88	29.88%	8.55%
Total	384.52	100.00%	28.61%

Table 3-18 - Open Space Use Breakdown

Open Space Use Breakdown - 2019			
Land Use Type	Acreage	Percent of Open Space	Percent of All Land
Agriculture	321.35	73.56%	23.91%
City Parks	38.51	8.82%	2.87%
Vacant	76.98	17.62%	5.73%
Total	436.84	100.00%	32.50%

Table 3-18 above demonstrates that unless there are zoning changes from agricultural and park to residential/commercial zoning, there is a need for the City to expand its incorporated boundary to achieve any growth targets.

3.4.3.2 Projected Land Uses

According to the Preferred Growth Development Alternative from the McFarland 2040 General Plan (May 2021 Update), there is a need for expansion in all areas of land use which will require an expansion of the City limits to accommodate growth projections. Additionally, with increased population also comes an increase in demand for employment. This growth projection represents significant growth for the City of McFarland municipal water supply.

Below is a table showing growth projections for population, housing, and employment:

Table 3-19 – Projected 2040 Population, Housing, and Employment

McFarland Projected Population, Housing, and Employment with Preferred Growth			
Year	2019-2020	2040[31]	% Increase
Population	15,800[32]	23,690	33.3%
Housing	3,067[33]	7,580	59.5%
Employment	5,200[34]	11,833	56.1%

It should also be noted from the employment figures that due to the relatively young population, there will be a greater need for more employment compared to baseline condition assumptions (refer to Figure 3-3 - Total Population Distribution).

The City of McFarland does not border any other cities, but borders agricultural lands, including Williamson Act lands. This is a barrier to outward growth for the City, where any acquisition of Williamson Act lands could take up to 10 years to develop. Highway 99 also divides the City into western and eastern sides, restricting movement across the City. The noise corridor surrounding Highway 99 and the railroad running parallel to the highway provide barriers to different sorts of development within the area (residential areas, schools, etc.). Expansion will be primarily to the west and north mostly to avoid Williamson Act lands, flood zone hazards to the east and the little municipal development on the eastern side of Highway 99. Most of the land for expansion will be acquired agricultural land, as there is not enough underutilized or unutilized land within the current City limits.

3.4.3.2.1 Residential Use

With respect to residential use, we project a continuance of existing development patterns within the City based on historical growth patterns and current land use trends. As most of the houses are classified as low-density, this will continue. A

[31] McFarland 2040 General Plan (May 2021 Update)

[32] Extrapolated from US Census Data

[33] California Department of Finance, 2019 Estimates, Table E-5

[34] State of California Employment Development Department. Using 2019 levels to avoid deviation from the norm due to COVID-19 impacts

majority of the proposed new residential development will continue to the west and to the east of the Highway 99 corridor.

3.4.3.2.2 Commercial and Industrial Use

Commercial Land Use is characterized by two different types: highway and general commercial. Highway commercial will provide service and shopping needs for customers traveling on Highway 99 and 46. General commercial is referring to neighborhood stores and big-box stores that will keep shopping within the City limits and not require for residents to travel to Wasco or Delano for needs. This commercial growth will be in the downtown area, East McFarland Extension, Whisler Road, and Famoso Road. The City estimates to allocate 174 additional acres to commercial and industrial land to achieve the growth estimate of 5,090 additional jobs by 2040 according to growth plan.

4 Water Use Characterization

This section provides guidance for describing and quantifying the City's past, current, and future water use projections through at least the year 2040, to the extent that records are available. A thorough characterization and analysis has been performed to provide a realistic prediction of future water use based upon the City's past and current water use, combined with considerations of anticipated growth, new regulations, changing climate conditions, and trends in customer water use behaviors.

The Water Code requires a description of water uses in the service area. This section of the UWMP presents the actual water use over the past 5 years, the current use, and the projected water usage at five-year increments between 2015 and 2040. As per the City's General Plan 2040 (May 2021 update), the population in 2040 is expected to grow to 23,690.

4.1 Non-Potable vs. Potable Water Use

Currently, the city provides only potable water to its customers. Any non-potable water that comes from the City's wastewater treatment plant does not go back into the municipal water supply but is allocated to groundwater recharge or sold to the North Kern Water Storage District.

The current water demand was developed using the most current water usage records in combination with the latest census data for the water system service area.

4.2 Past and Current Water Use

4.2.1 Water Use Sectors Listed in Water Code

Table 4-1 shows the breakdown of water use by sector as enumerated in Section 10631(d) of the Water Code. The following sections are not utilized by the City:

(G) Sales to other agencies – the City does not sell potable water to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof - The City does not recharge groundwater for the purposes of maintaining a saline water intrusion barrier. The City does conduct groundwater recharging operations; however, the recharge water is treated wastewater, and is not considered as part of one of the water use sectors.

4.2.1.1 Residential Sector

In the City, most residences (95 percent) are of the single-family type, which would typically indicate a higher water usage / capita value, since more water would be

used for outdoor purposes (i.e. grass, gardening, other irrigation, pools, etc.). As of 2020, the residential per capita water use averages 85 gallons per capita per day. This is a significant improvement over the past 8 years due to water efficiency improvements. The use of water is becoming more efficient, but with a high population growth projection, this overall water usage will increase.

4.2.1.2 Commercial Sector

The City has a wide variety of commercial establishments which serve the local population. The sector is growing at about 1.9 percent per year, mostly driven by the need for services in conjunction with a growing population. This is expected to continue through 2040.

4.2.1.3 Industrial Sector

The City has a small industrial sector, primarily centered on agriculture related industry. Some industrial growth is expected in the southern part of the City near Highway 99 in the future.

4.2.1.4 Institutional/Governmental Sector

The City has a stable institutional/governmental sector, primarily local and county government, schools, public facilities, and health care facilities. This sector is anticipated keep pace with the growth of the City.

4.2.1.5 Landscape/Recreational Sector

There are five parks within the City limits. These large landscape water users are supplied with landscape water by the City. Landscape and Recreational customer demand is expected to increase approximately 2 percent per year for the next 20 years, due to continued growth in population. However, increased efficiency and landscape conversions at existing parks should help offset new demand resulting from projected increases in this sector.

4.2.1.6 Agricultural Sector

For a smaller community in the San Joaquin Valley such as McFarland, agriculture is a vital source of employment. The City of McFarland currently has an agricultural employment rate of approximately 75 percent.

With respect to water supply, the City does not supply any of its system water supply to agriculture. Water for agricultural use is provide via private groundwater wells or by the Southern San Joaquin Municipal Utility District.

4.2.1.7 Sales to Other Agencies

The City does not sell any potable water to other agencies.

4.2.1.8 Conjunctive Use

The City works in coordination with the Southern San Joaquin Municipal Utility District (SSJMUD) to manage their water resources and conserve groundwater usage.

4.2.1.9 Groundwater Recharge

The City is not actively utilizing any groundwater recharge methods within its own service area.

4.2.1.10 Saline Water Intrusion Barriers

The City's service area is geographically and geologically located far enough away from the Pacific Ocean or any other body of water that would require a saline water intrusion barrier.

4.2.1.11 Distribution System Losses

Water system distribution losses are further discussed in Section 4.2.5.

4.2.2 Current Water Use

The City's retail demands for potable water in 2020 totaled 473 MG (Table 4-1) Sales to residential customers (single and multi-family) comprised 82.3 percent of the total volume. The City does not provide non-potable water to any of its customers.

Table 4-1 - Submittal Table for Potable and Non-Potable Water - Actual 2020

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual			
Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Add additional rows as needed			
Other Potable	All Residential	Drinking Water	386
Other Potable	Commercial / Institutional	Drinking Water	67
Losses	Non-Revenue Water	Drinking Water	16
		TOTAL	469
[1] Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4. *[2] Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

4.2.3 Past Water Use

As shown below, Figure 4-1 demonstrates that we can see that the water usage is not entirely dependent on the population. The largest factor affecting water demand over the previous decade has mostly been due to drought restrictions and an

increase in water efficiency. A sharp decrease in water usage between 2013 and 2019 (31 percent decrease) was recorded. When the total volume is converted into gallons per capita per day (GPCD), it results in a value of 96.9 GPCD. This is based on the "Land-Use" method according to Appendix K of the UWMP Guidebook and is low compared to other local values (see Table 4-5 for further detail). In the future it is likely that the population will increase the water usage as well. The decrease in water usage is also demonstrated on a per capita basis (Figure 4-2 - Historic Gallons per Capita). This illustrates how that the average water used by each resident has decreased considerably over the past 7 years.

Figure 4-1 - City's Service Area Historical Water Use vs. Population

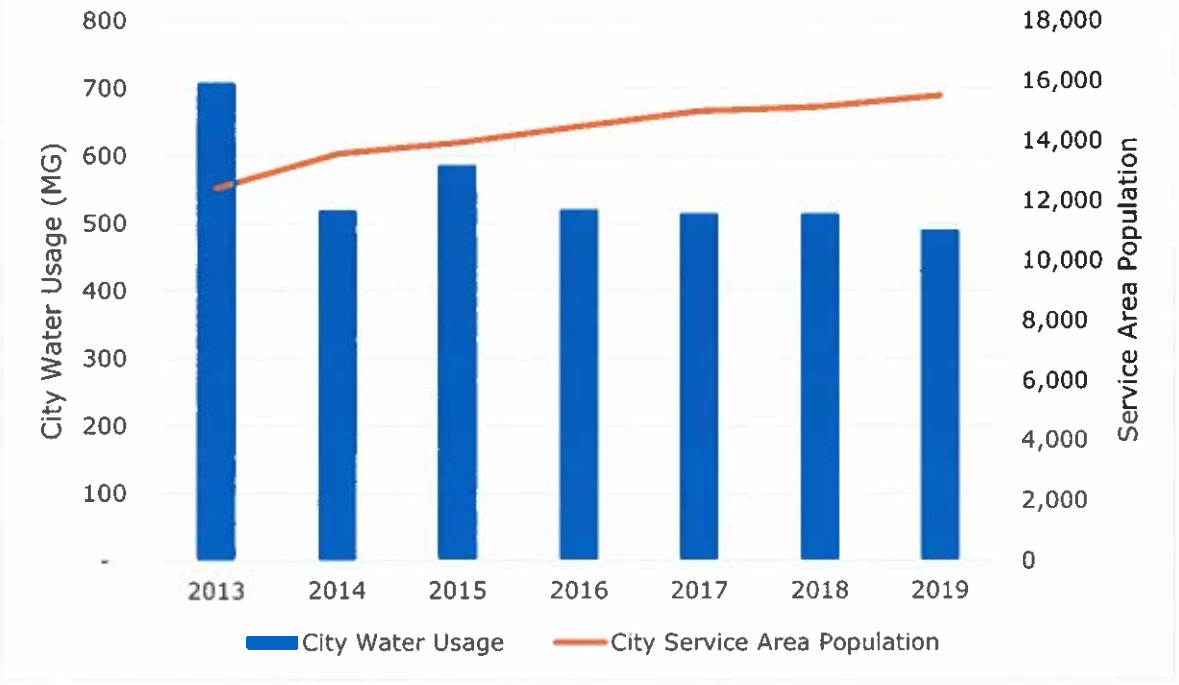
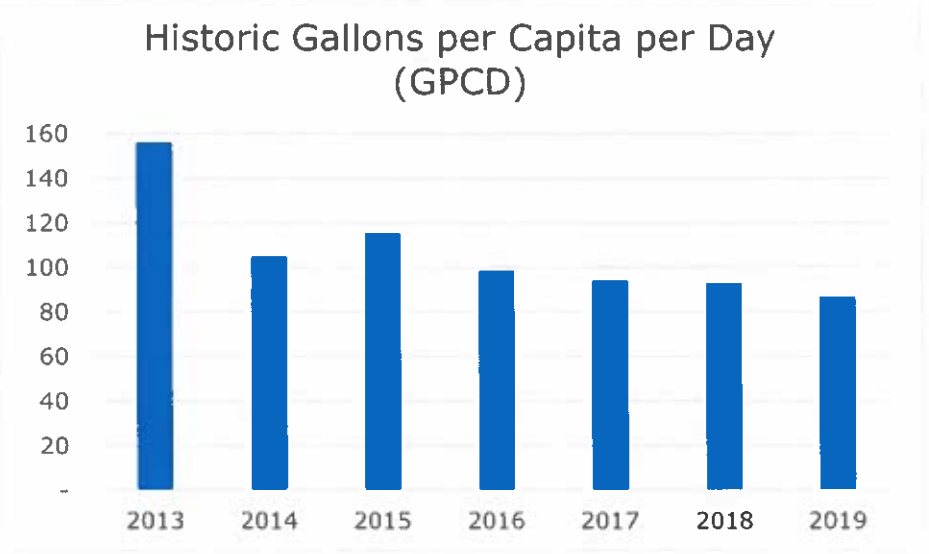


Figure 4-2 - Historic Gallons per Capita per Day



4.2.4 Additional Water Use Sectors Not Listed in the Water Code

The City of McFarland is not a wholesale supplier; therefore, this section will not be utilized.

4.2.5 Distribution System Water Loss

The City has not submitted any water loss audit reports over the past 5 years. However, the distribution system water loss may be calculated when the annual groundwater production is compared to the total water volume sold to the customers. This data is shown in Table 4-2 below.

Table 4-2 - System Water Losses

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss [1,2]
01/2016	7.9
01/2017	2.0
01/2018	-18.3[3]
01/2019	42.2
01/2020	15.8
[1] Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. *[2] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES: [3] Attributed to data collection and instrumentation error.	

4.3 Water Use Projections

This section discusses the City's urban water management plan related to projected water demand over the next 5 years and the next 20 years, during normal, dry, and multiple dry water years.

4.3.1 Projected Water Use

Overall, in line with population growth projections, the water demand is projected to increase over the next 20 years. The primary increase in water usage will be related to residential and commercial growth. It is expected that landscape irrigation will mostly increase with the population over the next 20 years with the opening up of new parks and schools within new residential developments. Although irrigation water demand may decrease as the City promotes an increase in the utilization of water efficient plants and trees. In reference to the City of McFarland General Plan 2040 (May 2021 update), the growth strategy is utilized for projecting future water demand. This will help the City plan for changes in water demand commensurate with this growth strategy. This growth strategy is based on previous trends and has not been substantially affected yet by any new projects.

The projections were calculated using data from municipal service connections and a combination of population, housing, land use and the persons per household statistics to calculate future water demand. Population projections came from the City of McFarland 2040 General Plan (May 2021 Update), the City of McFarland Environmental Impact Report (May 2021), and US Census Data (both US Census Datasets and American Community Survey). Appendix K of the Urban Water

Management Plan Guidebook 2020 was utilized to estimate demand factors for different categories with the unit count strategy for residential projections.

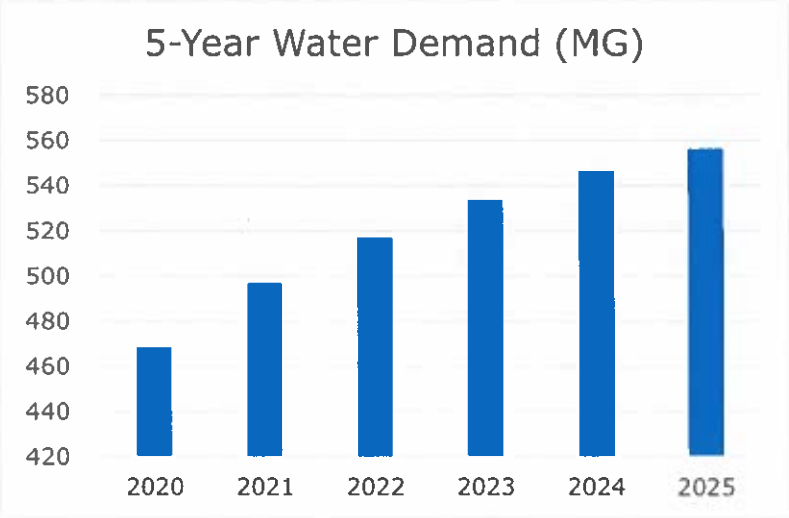
4.3.2 Characteristic Five-Year Water Use

Over the next 5 years, the water demand for the City will increase into 2025. The City water demand is projected to increase with growth to 556 MG in 2025, representing an 18 percent increase in water demand from 2020. An increase in residential homes, currently comprising the vast majority of water use in the City, will be the driving factor for water demand increase in the City. In general, the low-density designated homes will continue to be built to fit the historic trends of the City. The water usage per home is projected to slightly drop off with increases in water efficiency continuing to be implemented in newer homes.

Table 4-3 - Water Demand Projections for 2020-2025

5-year Water Demand						
Calendar Year	2020	2021	2022	2023	2024	2025
Total Water Demand	469	497	517	533	546	556
NOTES: Volume in MG						

Figure 4-3 - Water Demand 2020-2025



4.3.3 Characteristic 20-Year Water Demand

Water demand for the City is expected to continue to increase into the year 2040. However, because of increases in water efficiency and construction of newer and more water efficient homes, the Gallons per Capita per Day (GPCD) is expected to decrease over time. Considering population and housing growth over time, the overall water demand is expected to increase to 774 MG in 2040. This is a 64

percent increase in water demand from the year 2020, or a 2.5 percent increase on an annualized basis. There are passive water savings included in the projections which are a result of codes, standards, ordinances, and public outreach with respect to water conservation and higher efficiency fixtures.

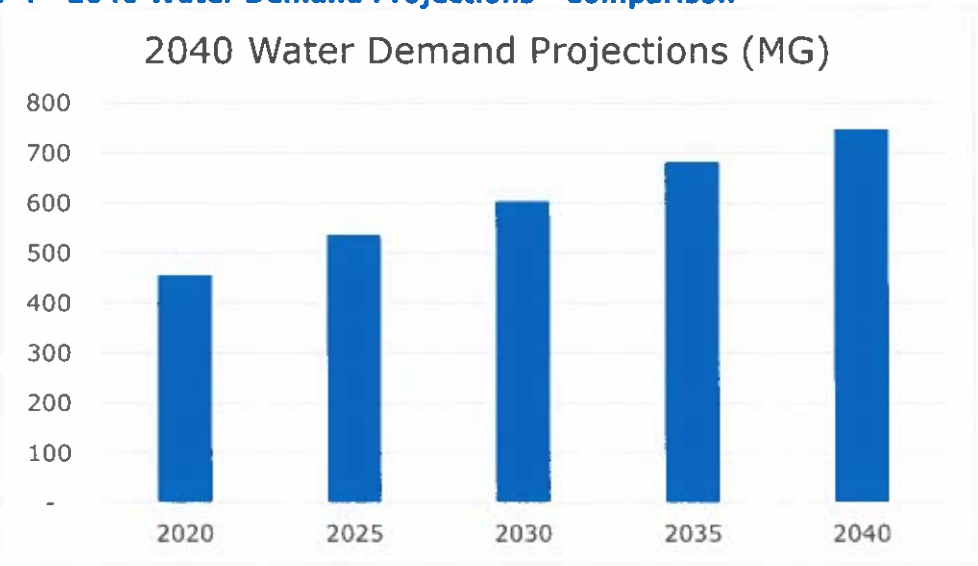
Table 4-4 - Submittal Table 4-2 Retail: Total Water Projected

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable *From Tables 4-1R and 4-2 R*	469	556	626	707	774	0
Recycled Water Demand[1] *From Table 6-4*	0	0	0	0	0	0
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]						
TOTAL WATER USE	469	556	626	707	774	0

[1]Recycled water demand fields will be blank until Table 6-4 is complete
*[2] Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*

NOTES:

Figure 4-4 - 2040 Water Demand Projections - Comparison



4.4 Water Use for Lower Income Households

The UWMP Act requires retail water suppliers to include water use projections for single-family and multi-family residential housing for lower income and affordable households. It should be noted that 100 percent of the developed area within the City boundary is classified as a Disadvantaged Community in accordance with SB 535. With that in mind, all of the residential demands for lower income housing were included in the water demand projections. This is apparent when the GPCD values for 2020 are compared with other local municipalities in the San Joaquin Valley:

Table 4-5 - GPCD Comparison

GPCD Comparison from 2020 UWMP	
City of Shafter	217
City of Fresno	198
City of Modesto	175
City of Turlock	250
Bakersfield – California Water Service	182
City of McFarland	82

4.5 Climate Change Considerations

With the projected impacts of global warming trends, California may be on the receiving end of severe and long enduring droughts that may critically damage the water supply for California residents, and specifically those in the City. Since the City obtains all of its water from groundwater sources, changes in the water table depth may require lowering of vertical turbine pumps, or sanctioning the drilling of newer and deeper groundwater wells.

It should further be noted that the City's groundwater source is within the San Joaquin Valley – Kern Country Groundwater Basin, which is in the category of "Critical overdraft" according to the Sustainable Groundwater Management Act (SGMA). This classification of "Critical Overdraft" requires the formation of a Groundwater Sustainability Agency (GSA) to present a groundwater management plan. The City is under its own GSA, but it coordinates with the Southern San Joaquin Municipal Utility District (SSJMUD) in the establishment of an area management plan, referred to as a Groundwater Sustainability Plan or GSP.

Further climate considerations related to groundwater and water demand are further explained below.

4.5.1 Groundwater

Variation in weather year after year in California has and will continue to have a substantial impact on the water demands in the future. As the City obtains its water from the San Joaquin Valley Groundwater Basin, it is important to note how the groundwater basin is affected with changes in weather. In dry years, the snowpack levels in the Sierra Nevada Mountain range decreases, which affects the groundwater levels in the basin, as less snowmelt correlates to lower groundwater recharge rates. This also affects the surface water, as the snowmelt also flows into the Sacramento Delta and into the State Water Project (SWP) in Northern California. This has a direct impact on the Central and San Joaquin Valley groundwater basin. In drought years, those contractors who distribute the water from the SWP receive reduced allocations of water, and they pass this reduction onto their customers. This is important for the San Joaquin Valley as 80 percent of water consumption is allocated to agriculture. In these dry years, farmers are forced to pump groundwater to obtain the water needed for their crops. This correspondingly decreases the groundwater levels in the basin. With less groundwater recharge in the drought years, and more groundwater pumping, this has a significant impact on the City of McFarland and other cities in the area relying solely on groundwater.

The most recent sustained drought from 2011-2016 resulted in former Governor Brown declaring a state of emergency and directing state officials to take all necessary actions to prepare for water shortages. To help reduce the effects of the drought, an executive order was signed in April 2015 which mandated a 20 percent reduction in residential water use. The reduction in water use as a result of the

prolonged drought and corresponding executive order is evident as shown in Figure 4-2 illustrates how the per capita system demand decreased sharply from 2011 to 2016.

In the event of a normal year or a single dry year, the City's groundwater supplies remain reliable. The City wells are constructed deep (to depths of 1,000 ft to 1,225 ft) and are well below the established minimum threshold values established by the GSP. However, in the event of prolonged droughts lasting several years, such as the last drought mentioned above, groundwater levels decrease. Depending on the amount of groundwater level decrease, this can necessitate lowering of well pumps or the drilling and construction of new, deeper groundwater wells.

The NOAA and EPA both forecast for the duration and severity of droughts to increase in California over the next century, with a corresponding increase in average temperature. This will affect the supply of water for McFarland and may affect the demand if the drought conditions are severe and restrictive policies are put into place.

Another indirect, potentially significant impact is the current damage to the Friant-Kern Canal (FKC). Because of subsidence in some areas of the FKC, full water deliveries are not possible. In some places, the canal has lost more than half of its capacity. If subsidence around the FKC increases, then so will the water delivery volume. If deliveries for local farmers decrease, then groundwater pumping will increase. In 2020, the federal government announced about $5 million to study and begin pre-construction work on repairing the FKC.[35]

4.5.2 Water Demand

In general, warmer temperatures correlate to higher water usage. With the average temperature projected to continue increasing over the next 20 years, so will the demand for water. However, it should be noted that these water demands will experience a mitigating effect with the transition to drought efficient plants and irrigation methods as the average temperature rises and the duration and severity of droughts increase.

[35] https://www.watereducation.org/aquapedia/friant-kern-canal#:~:text=Decades%20of%20groundwater%20overdraft%20near,repairing%20the%20Friant%2DKern%20Canal.

5 SB X7-7 Baselines, Targets, & 2020 Compliance

5.1 Water Conservation Overview

With the adoption of the Water Conservation Act of 2009, also known as SB X7-7, the State of California is required to reduce urban per capita water use by 20 percent by the year 2020. In order to achieve this statewide objective, the Legislature required each Retail Supplier to develop an urban water use target to help the state collectively achieve a 20 percent reduction.

For the City to follow the guidelines outlined in SB X7-7, an SBX7-7 Verification Form must be submitted as well as an SB X7-7 Compliance Form. Normally, the SB X7-7 Verification Form was completed with submittal of the 2015 UWMP, but the City did not submit an UWMP in 2015. This is the City's first UWMP. Although the City is still not considered a public water agency, as it has less than 3,000 customers and provides less than 3,000 afa, the City opted to prepare and submit a UWMP for 2020.

After calculating baseline water use rates for the SB X7-7 Verification Form, it was calculated in the SB X7-7 Compliance Form that the City was compliant with SB X7-7 per capita water usage requirements. The 2020 Target GPCD was 115, and the City's Service Area GPCD for 2020 was 81.

5.2 Baseline Water Use

The baseline water use was calculated following the steps in the SB X7-7 Verification Form. Two different baseline periods were utilized: a 10 to 15-year baseline period and a 5-year baseline period. The former period is used to establish a baseline GPCD, while the latter is to confirm the 2020 target requirements. Appendix P of the 2020 UWMP Guidebook was utilized to establish these baseline numbers. For those preparing a UWMP who have not previously submitted an SB X7-7 Verification Form, a new one must be prepared. For baseline water use considerations, the time period remains the same as for the previous SB X7-7 Verification Form.

5.2.1 10 to 15-Year Baseline Period (Baseline GPCD)

The 10 to 15-year Baseline water use was calculated and obtained from the period between 2000-2009. The City's baseline water use is 144 GPCD.

5.2.2 5-Year Baseline Period (Target GPCD)

The 5-year baseline was also calculated for the SB X7-7 Verification Form. This number is used to confirm that the selected 2020 target meets the minimum water

use reduction requirements. The City's 5-year baseline water use was calculated to be 141 GPCD from the period of 2003-2007.

5.3 SB X7-7 Water Use Targets

The water use target calculated for the SB X7-7 for new UWMPs provides a method in Appendix P.3.5 to calculate a pro-rated water use target. The calculation is based on the number of years since the City became subject to UWMP requirements. Since the City is not subject to UWMP requirements, there is no year to begin proration for water use target considerations. Therefore, the City adhered to the original SB X7-7 calculation method for water use targets.

5.3.1 SB X7-7 Target Methods

There are four target calculation methods to choose from when calculating the target 2020 usage reductions. The City chose "Option 1" – requiring a simple 20 percent reduction from the baseline usage calculated.

5.3.2 2020 Targets and Compliance

Under Compliance Option 1, the 20 percent reduction, the City's 2020 target is 123 GPCD as shown in the table below.

Table 5-1 - Submittal Table 5-1 Baselines and Targets Summary

Submittal Table 5-1 Baselines and Targets Summary From SB X7-7 Verification Form *Retail Supplier or Regional Alliance Only*				
Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*2000*	*2009*	*144*	*115*
5 Year	*2003*	*2007*	*141*	
**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

As previously noted, the City's actual 2020 usage was 82 GPCD, which is below the 2020 target of 115 GPCD. The City met its 2020 water use target and is in compliance with SB X7-7.

Table 5-2 - Submittal Table 5-2: Compliance From SB X7-7

Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form *Retail Supplier or Regional Alliance Only*				
2020 GPCD			2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*		
81	*0*	*81*	*115*	*Y*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

6 Water Supply Characterization

This section is a counterpart to Section 4 – Water Use Characterization, which characterizes the City's water usage. This section requires detail related to the current sources of water supply and the projected water supply sources through 2040. This section also includes energy intensity calculations of the water service, a new requirement in the 2020 UWMP.

6.1 Water Supply Overview

The objective of this overview is to identify and quantify, to the extent feasible, the existing and planned sources of water available to the City for normal, dry, and extended drought periods. If there are to be new projects, a description of the measures that are being undertaken to acquire and develop those water supplies is required.

The City meets all its water demands through local groundwater pumping. The City does not provide water to agricultural lands; their water is provided by the Central Valley Project or from private groundwater wells.

Currently, at a 50 percent utilization rate, the City can provide 1,235 MG of groundwater supply annually. This amount of groundwater is characterized as the available water supply for the City with the currently active groundwater wells.

There is no projected change for the source of water supply by 2040. The water will continue to be supplied by groundwater. The following tables characterize the current water supply source, future water supply sources, and projected supply. There is a need for at least one more groundwater well, which is due to be completed in 2022. This added capacity is figured into the projected water supply volumes. The projected water demand for 2040 is 774 MG, which is within the groundwater supply capabilities on an annual basis.

Table 6-1 – Retail Water Supplies – Actual

Submittal Table 6-8 Retail: Water Supplies — Actual			
Water Supply		2020	
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Actual Volume*	Water Quality Drop Down List
Add additional rows as needed			
Groundwater (not desalinated)	San Joaquin Valley Groundwater Basin	1,235	Drinking Water
	Total	1,235	
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: Water Demand was 473 MG for 2020.			

Table 6-2 - Projected Water Supplies

Submittal Table 6-9 Retail: Water Supplies — Projected					
Water Supply		Projected Water Supply * Report to the Extent Practicable			
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	**2025** Reasonably Available Volume	**2030** Reasonably Available Volume	**2035** Reasonably Available Volume	**2040** Reasonably Available Volume
Add additional rows as needed					
Groundwater (not desalinated)	San Joaquin Valley Groundwater Basin	1,496	1,496	1,496	1,496
	Total	1,496	1,496	1,496	1,496
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES: These numbers denote water supply available, not actual water demand.					

6.2 Groundwater

The City has historically utilized local groundwater sources as their sole water supply. This is true for most other cities in the San Joaquin Valley. The groundwater source is located within the Kern County Subbasin which is within the Tulare Lake

Hydrologic Region of the San Joaquin Valley Basin. The water supply is under the McFarland Groundwater Sustainability Agency (GSA), which falls under the Kern Groundwater Sustainability Plan (GSP) Area, and managed by the Southern San Joaquin Municipal Utility District (SSJMUD) agency management area.

This section also provides information related to historic groundwater projection as well as 20-year projections of City groundwater demand.

Under the SSJMUD Management Area Plan, the City operates within a safe range to protect the long-term sustainability of the Kern County Subbasin.

Figure 6-1 - Kern County Subbasin

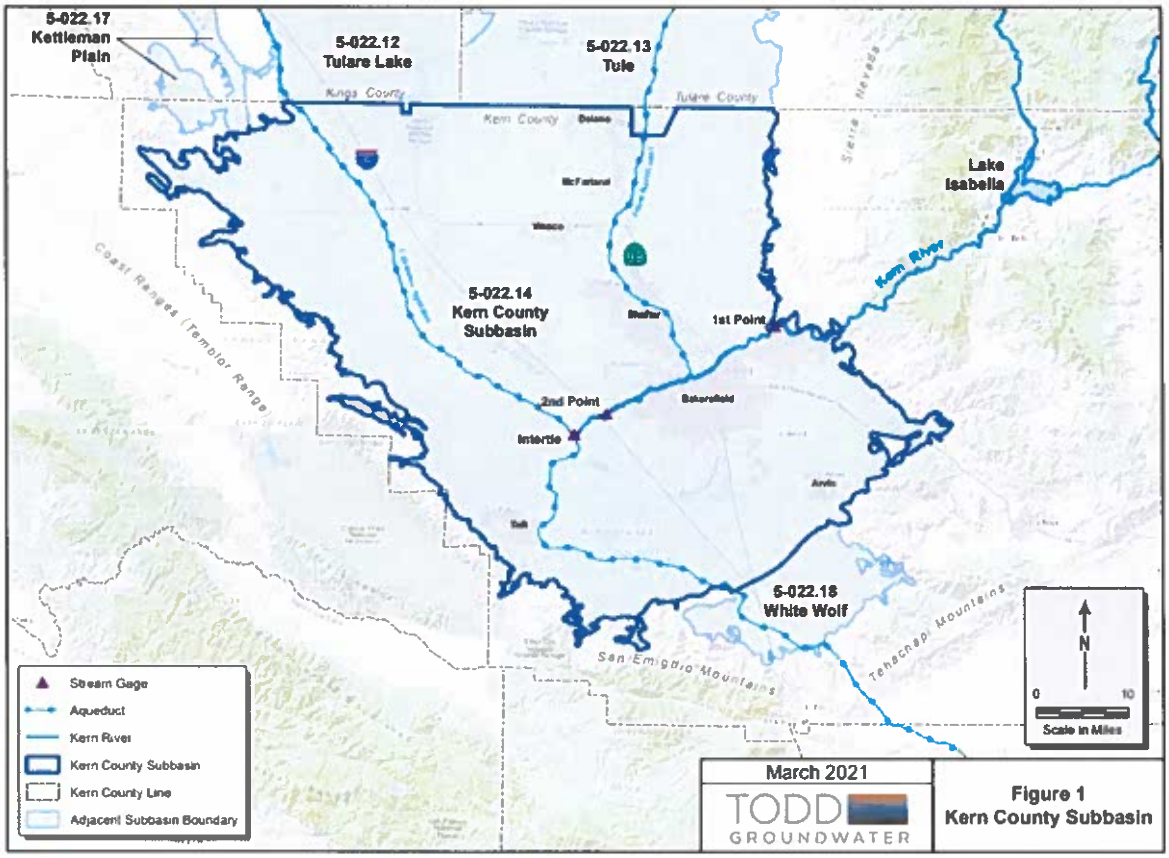


Figure 6-2 - Kern County Subbasin Groundwater Sustainability Agencies Map

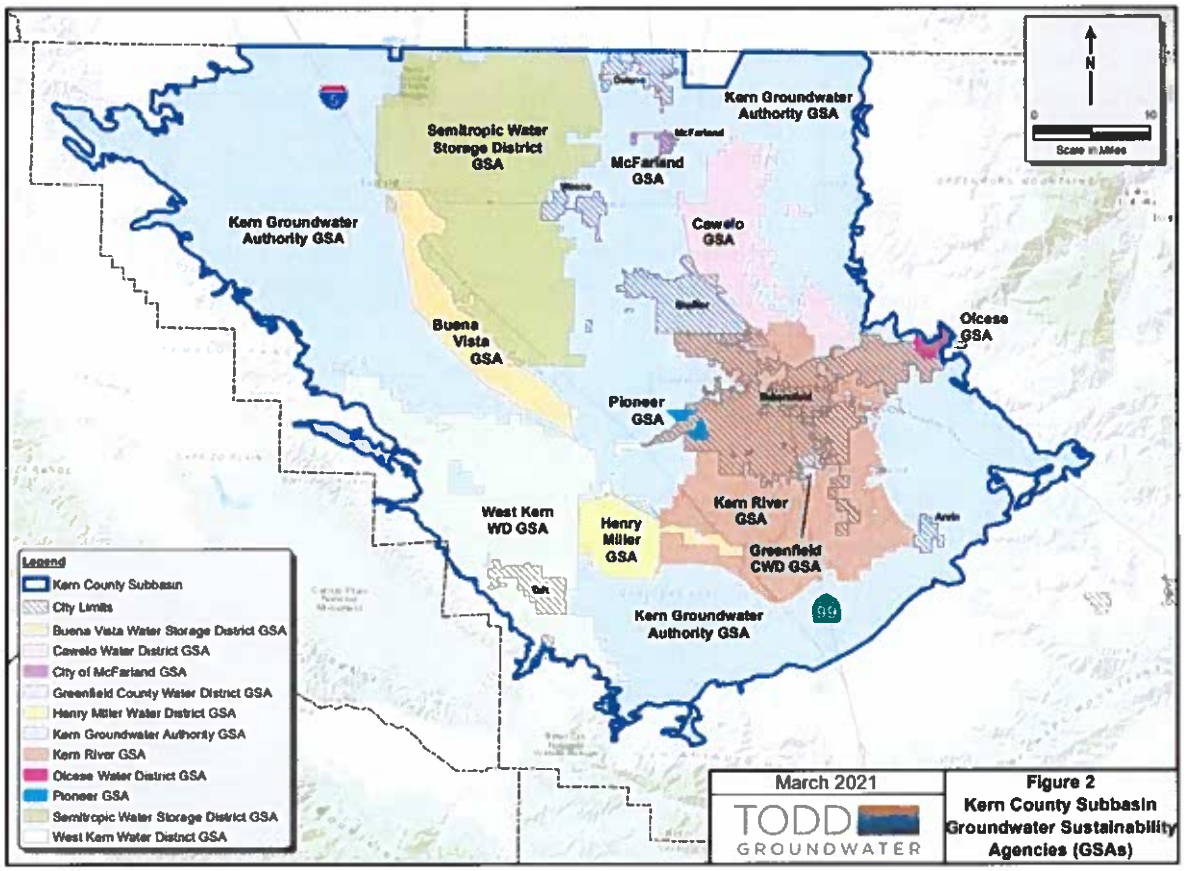


Figure 6-3 - Groundwater Sustainability Plan Areas

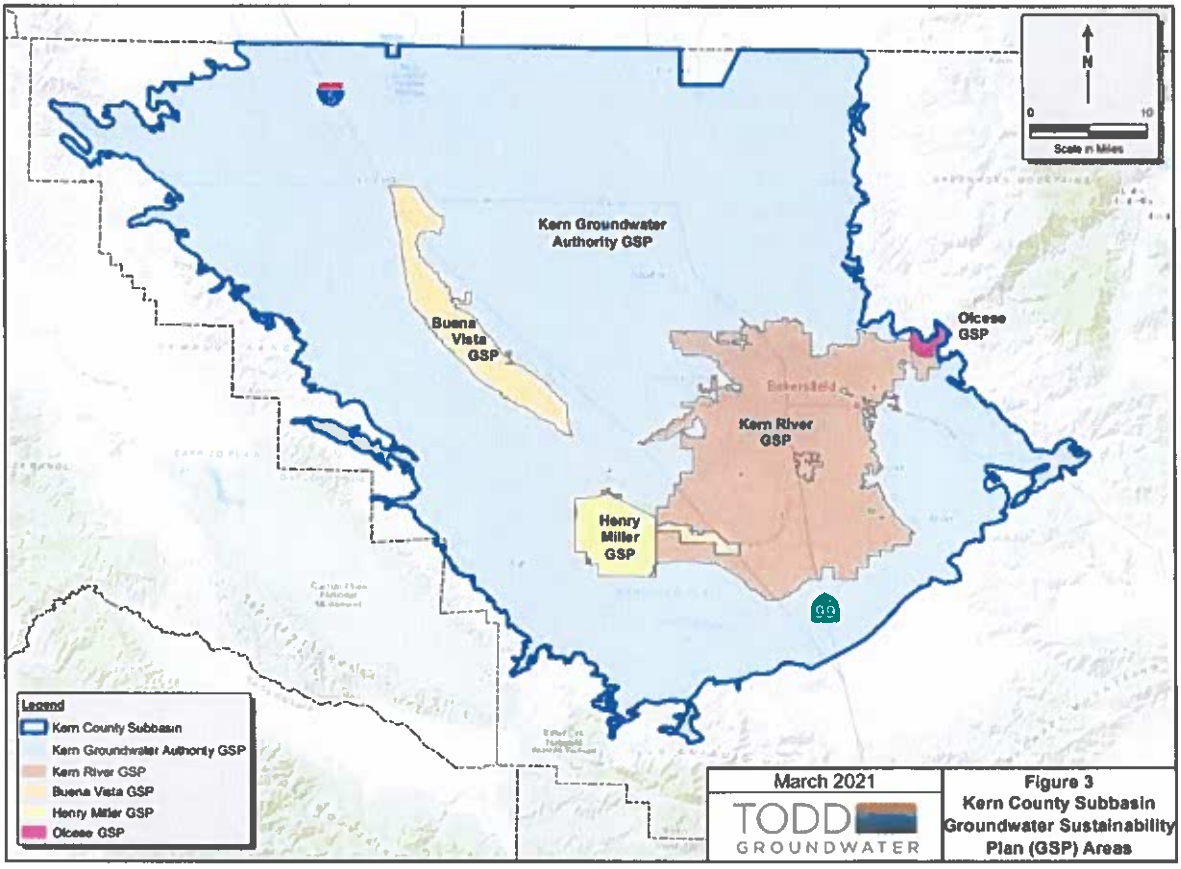
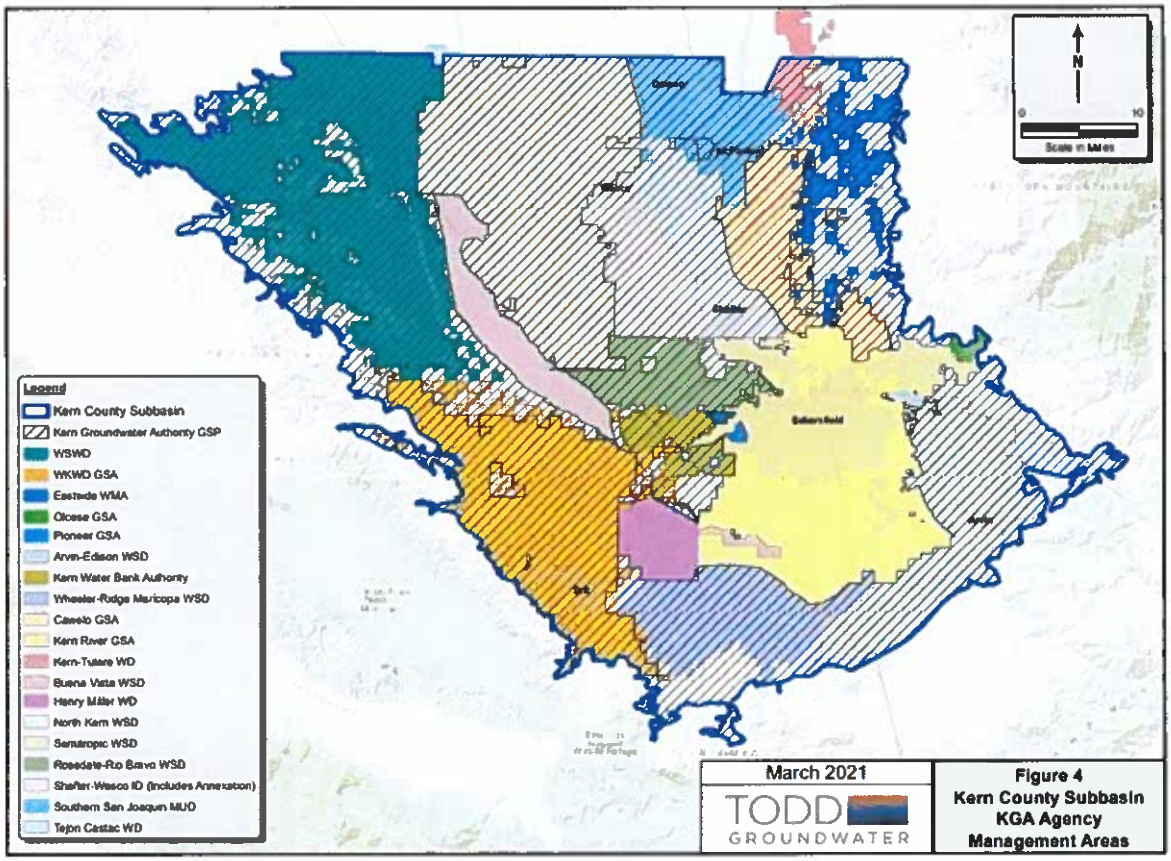


Figure 6-4 - Kern County Subbasin Agency Management Areas



6.2.1 Historical Groundwater Production

The table below shows the amount of groundwater pumped between the years 2016 to 2020. The average volume of groundwater pumped over this 5-year period is 503 MG. These values do not represent the groundwater supply available, only the water demand. Over the five-year period shown in Table 6-3, the groundwater supply was more than adequate to meet the overall water demand.

Table 6-3 - Groundwater Volume Pumped 2016-2020

Submittal Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
☐	All or part of the groundwater described below is desalinated.					
Groundwater Type *Drop Down List May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
Alluvial Basin	San Joaquin Valley Groundwater Basin - Kern County Subbasin	521	515	514	491	469
	TOTAL	521	515	514	491	469
* *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

6.2.2 Kern County Subbasin Characteristics

The Kern County Subbasin is within the Tulare Lake HR and comprises an area of approximately 1,945,000 acres (3,040 mi^2) in Kern County. The subbasin is bounded to the north by the Tulare Lake and Tule Subbasin, to the east and south by crystalline bedrock of the Sierra Nevada and San Emigdio Mountains, and to the west by the marine sediments of the San Emigdio Mountains and Coastal Ranges.

The Kern County Subbasin is managed by 11 different GSA's. The City of McFarland manages its own GSA. A map of the Kern County Subbasin is shown in Figure 6-1. The Kern County Water Agency estimates the total water in storage to be 40,000,000 acre-feet and dewatered aquifer storage to be 10,000,000 acre-feet.

Natural recharge is primarily from stream seepage along the eastern subbasin and the Kern River; however, recharge of applied irrigation water is the largest contributor.

The San Joaquin Valley represents the southern portion of the Great Central Valley of California. The San Joaquin Valley is a structural trough up to 200 miles long and 70 miles wide filled with up to 32,000 feet of marine and continental sediments deposited during periodic inundation by the Pacific Ocean and by erosion of the

surrounding mountains, respectively. Continental deposits shed from the surrounding mountains form an alluvial wedge that thickens from the valley margins toward the axis of the structural trough. This depositional axis is below to slightly west of the series of rivers, lakes, sloughs, and marshes that mark the current and historic axis of surface drainage in the San Joaquin Valley.

6.2.2.1 Water Bearing Formations

Sediments that comprise the shallow to intermediate depth water-bearing deposits in the groundwater subbasin are primarily continental deposits of Tertiary and Quaternary age. From oldest to youngest the deposits include the Olcese and Santa Margarita Formations; the Tulare Formation (western subbasin) and its eastern subbasin equivalent, the Kern River Formation; older alluvium/stream deposits; and younger alluvium and coeval flood basin deposits. Specific yield values for the unconfined aquifer (Tulare and Kern River Formations and overlying alluvium) were compiled from two sources. The DWR's San Joaquin District office estimates (unpublished) ranges from 5.3 to 19.6 percent and averages 11.8 percent for the interval from surface to 300 feet below grade. The DWR (1977) groundwater model of Kern County lists the range as 8.0 to 19.5 percent with an average value of 12.4 percent representing an interval thickness of 175 to 2,900 feet and averaging approximately 600 feet. The greatest thickness of unconfined aquifer occurs along the eastern subbasin margin. The highest specific yield values are associated with sediments of the Kern River Fan west of Bakersfield.

6.2.2.2 Olcese and Santa Margarita Formations

The origin of these Miocene-age deposits varies from continental to marine from east to west across the subbasin (Bartow and McDougall 1984). The Olcese and Santa Margarita Formations are current or potential sources of drinking water only in the northeastern portion of the subbasin where they occur as confined aquifers. The Olcese Formation is primarily sand, ranging in thickness from 100 to 450 feet. The Santa Margarita Formation is from 200 to 600 feet thick and consists of coarse sand (Hilton and others 1963).

6.2.2.3 Tulare and Kern River Formations

These units are both Plio-Pleistocene age and represent a west/east facies change across the subbasin. The Tulare Formation (western subbasin) contains up to 2,200 feet of interbedded, oxidized to reduced sands; gypsiferous clays and gravels derived predominantly from Coast Range sources. The formation includes the Corcoran Clay Member, which is present in the subsurface from the Kern River Outlet Channel on the west through the central and much of the eastern subbasin at depths of 300 to 650 feet (Croft 1972), groundwater beneath the Corcoran Clay is confined. The Kern River Formation includes from 500 to 2,000 feet of poorly sorted, lenticular deposits of clay, silt, sand, and gravel derived from the Sierra Nevada. Both units are moderately to highly permeable and yield moderate to large quantities of water to wells (Hilton and others 1963).

6.2.2.4 Older Alluvium/Stream and Terrace Deposits

This unit is composed of up to 250 feet of Pleistocene-age lenticular deposits of clay, silt, sand, and gravel that are loosely consolidated to cemented and are exposed mainly at the subbasin margins. The unit is moderately to highly permeable and yields large quantities of water to wells (Hilton and others 1963; Wood and Davis 1959; Wood and Dale 1964). This sedimentary unit is often indistinguishable from the Tulare and Kern Formations below and together with these underlying formations, forms the principal aquifer body in the Kern County Groundwater subbasin.

6.2.2.5 Younger Alluvium/Flood Basin Deposits

This Holocene-age unit varies in character and thickness about the subbasin. At the eastern and southern subbasin margins the unit is composed of up to 150 feet of interstratified and discontinuous beds of clay, silt, sand, and gravel. In the southwestern subbasin it is finer grained and less permeable as it grades into fine-grained flood basin deposits underlying the historic beds of Buena Vista and Kern Lakes in the southern subbasin (Hilton and others 1963; Wood and Dale 1964). The flood basin deposits consist of silt, silty clay, sandy clay, and clay interbedded with poorly permeable sand layers. These flood basin deposits are difficult to distinguish from underlying fine-grained older alluvium and the total thickness of both units may be as much as 1,000 feet (Wood and Dale 1964).

6.2.2.6 Groundwater Levels

In general, groundwater levels for the entirety of the Lake Tulare Hydrologic Region are trending lower than historic levels. Between 1998 and 2018, about 78 percent of monitoring wells in the entire Tulare Lake Hydrologic Region experienced a declining trend. Furthermore, over 51 percent of all the monitoring wells showed a water level drop of 2.5 feet / year, which over a 20-year period, is a drop of 50 feet in groundwater levels. A stable trend was observed in 20 percent of the monitoring wells.

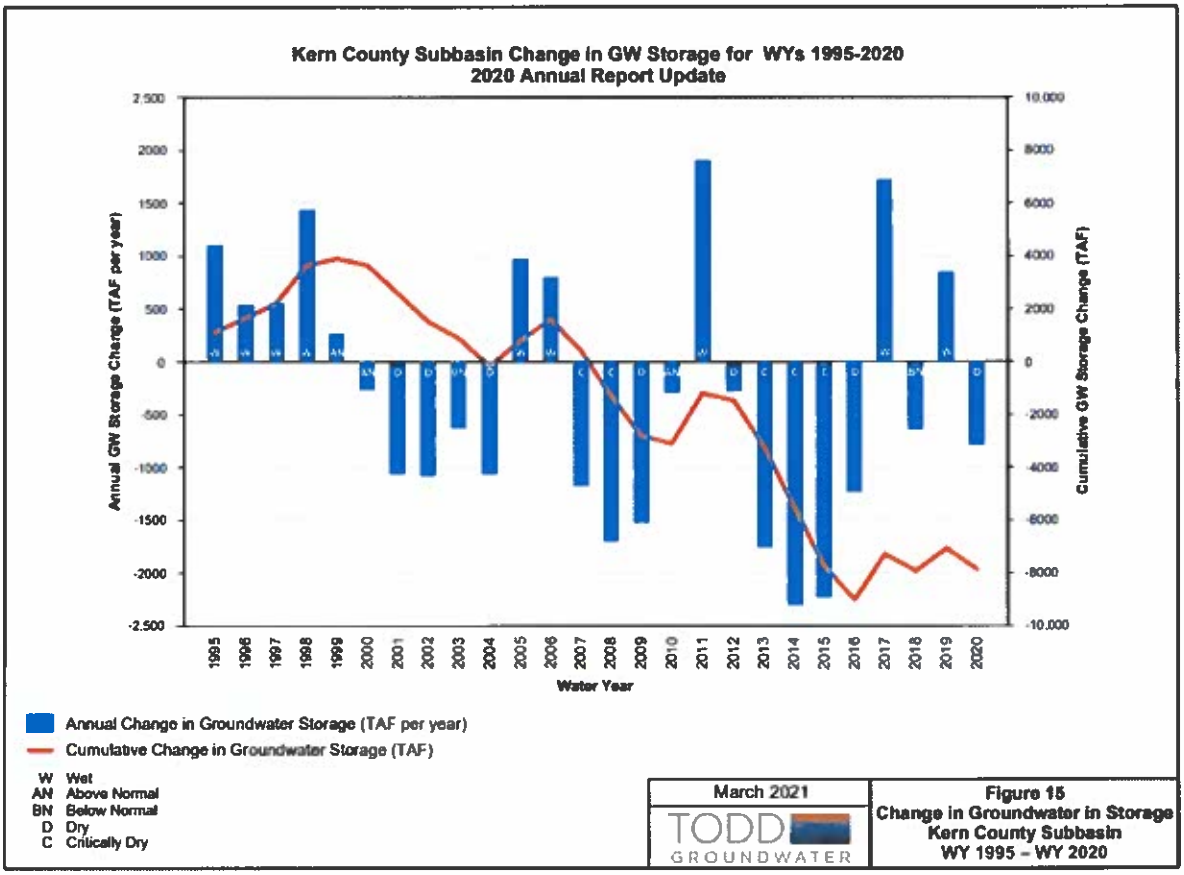
Over the past 25 years, the Kern County Subbasin has seen a total storage capacity decrease of 2,607 MG (8000 TAF). The largest decreases have been attributed to a major drought in the years 2012-2016. This water storage loss is the primary reason that the Kern County Subbasin is designated as "Critically Overdrafted" according to the Sustainable Groundwater Management Act (SGMA).

It should be noted, with respect to the focus of the report on the City, that only 5.41 percent of all groundwater use in the entire Tulare Lake HR (143,000 MG out of 2,650,000 MG) is under urban usage. The rest is under agricultural use. Urban water use changes will have only a diminished effect on the total water usage in the region.

Table 6-4 - Groundwater Use Tulare Lake Hydrologic Region

Groundwater Use in Tulare Lake Hydrologic Region[36]			
Water Use Type	Million Acre-Foot (MAF)	Million Gallons (MG)	Percentage
Agriculture	7.70	2,652,000	94.9%
Urban	0.44	143,000	5.1%

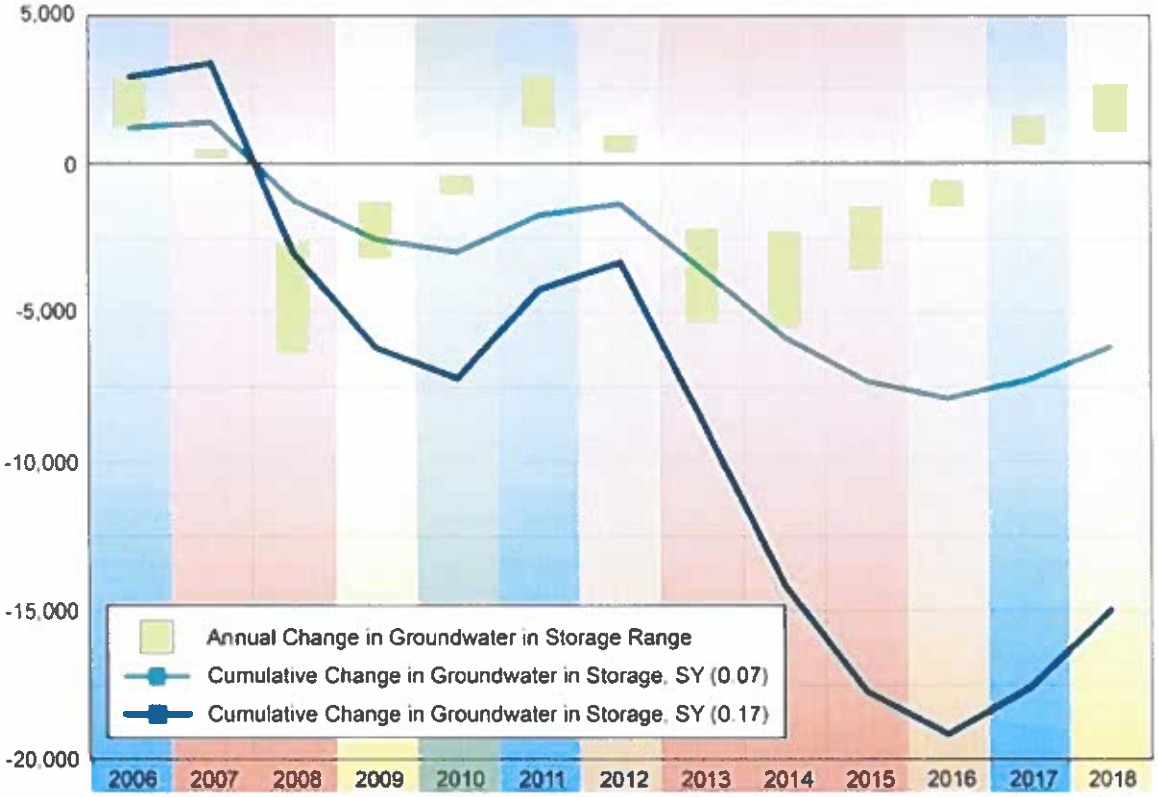
Figure 6-5 – Kern County Subbasin: Groundwater Storage Levels Year-Over-Year[37]



[36] California Groundwater Update 2020.

[37] Kern County Subbasin Groundwater Sustainability Plan 2021.

Figure 6-6 - Tulare Lake Hydrologic Region Change in Storage[38]



6.2.2.7 Groundwater Quality

The most commonly detected chemical above a regulatory limit in the region was 1,2,3 TCP, with 22.6 percent of the wells reporting above the primary MCL.

[38] California Groundwater Update 2020

Table 6-5 - Top 10 Chemicals Detected in Tulare Lake Hydrologic Region[39]

Top 10 Chemicals Detected in Hydrologic Region by Percentage Samples Greater than MCL	
Chemical	Percentage Detected in Monitoring Wells
1,2,3 Trichloropropane (1,2,3 PCP)	22.6%
Iron	17.8%
Nitrate	12.6%
Uranium	11.9%
Arsenic	11.6%
Manganese	10.5%
Gross Alpha	10.2%
1,2-Dibromo, 3-Chloropropane (DBCP)	4.5%
Specific Conductivity	2.6%
Radon-222	2.5%

Shallow groundwater presents problems for agriculture in the western portion of the basin. High TDS, sodium chloride, and sulfate are associated with the axial trough of the subbasin. The City of McFarland constructs the City wells deep to avoid Nitrate and DBCP, however they do have to treat for Arsenic removal and will have to treat to remove 1,2,3-TCP in the future.

6.2.3 Groundwater Sustainability

In 2014, the State of California implemented the Sustainable Groundwater Management Act (SGMA) to help manage the state's groundwater resources during a five-year drought in California from 2012 to 2016. It is focused on limiting the adverse effects of groundwater overextraction: groundwater-level declines, land subsidence, and water quality degradation. SGMA is built on the premise that groundwater is best managed at the local level. However, SGMA recognizes the legacy and necessity of state's support to locals for successful groundwater management because the complexities of groundwater management require the reliance on advanced management tools, where the state can play a major and effective role. As a result, SGMA allows the Department of Water Resources (DWR)

[39] California Groundwater Update 2020

to provide assistance to the localities in addition to its regulatory role in the implementation of the SGMA.

SGMA requires all high- and medium-priority basis, designated by DWR, to be sustainably managed. The Kern County Subbasin is designated as a high-priority basin. To comply with SGMA, the Kern County Subbasin has been organized into several Groundwater Sustainability Agencies (GSAs), which coordinated on five Groundwater Sustainability Plans (GSPs) that cover the entire subbasin. The City of McFarland has formed its own GSA, however it is covered under the Kern Groundwater Authority (GSP) in coordination with SSJMUD and the City of Delano.

6.2.4 Groundwater Production

The City currently has 3 active groundwater wells: Well 06, the Garzoli Well, and the Browning Rd Well. It should be noted that the Garzoli Well is actively treated for arsenic removal. These three combined wells provide a total production capacity of 4,700 gallons per minute (GPM). Additionally, the City has a 1 million gallon storage tank with booster pumps capable of a total of 2,000 GPM. Assuming a 50 percent utilization rate, where the wells are operated for 12 hours per day, the annual available active groundwater supply volume is 1,235 MG – or 3,790 acre-feet. At a 75 percent utilization rate, the annual available supply is 1,853 MG – or 5,686 acre-feet. The amount of groundwater produced for 2020 is shown in Table 6-1, and the historical production data is shown below in Table 6-3.

6.2.5 Projected Groundwater Supplies

The highest annual volume of groundwater pumped in the previous five years is 521 MG. This volume equates to a continuous average production rate of 989 GPM. The total pumping capacity of the City's groundwater wells is 4,700 GPM or 1,235 MG per year at a 50 percent utilization rate.

Projecting into the future, groundwater supply in 2040 is expected to increase by 39 percent from 2020 supply levels to 747 MG. This amount remains less than the 1,235 MG/year that can be supplied by the three groundwater wells provided the wells do not encounter mechanical or maintenance issues.

According to Section 64554 of the California Waterworks Standards, community water systems must be capable of meeting the maximum daily demand (MDD) with its highest capacity source offline. The highest capacity source is the Browning Rd Well, which has a pumping capacity of 2,000 GPM. With the Browning Rd Well offline, the system pumping capacity is 4,700 GPM with the storage tank booster pumps included. Additionally, for water systems with over 1,000 or more service connections, the system shall be able to meet four hours of peak hourly demand. According to the calculations shown in Table 6-7, it can be established that there will not be enough active pumping capacity for the City after 2035 with the current groundwater well sources. For the four-hour peak demand requirement, the one-

million-gallon storage tank will provide enough water to supply the City along with the three other groundwater sources until 2040.

Table 6-6 - Projected System Demand

Projected System Demand				
Year	Annual Production (MG)	Average Day Demand GPM	Maximum Day Demand GPM	Peak Hour Demand GPM
2020	456	868	1,952	2,928
2025	537	1,021	2,297	3,446
2030	604	1,149	2,586	3,879
2035	682	1,297	2,918	4,377
2040	747	1,421	3,197	4,796
Notes: Max Day Demand (MDD) Peak Factor = 2.25, Peak Hour Demand = 1.5 * MDD				

6.3 Future Water Supply Projects

To help with system demand as the City continues its growth, the City expects to construct another groundwater well in 2022. This will help the City reliably supply water during peak hour demand.

Table 6-7 - Expected Future Water Supply Projects

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Supplier Name*				
Add additional rows as needed						
New Municipal Well	No		New Water Supply Well	2022		261
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

6.4 Wastewater and Recycled Water

The City's wastewater is sent to the City's Wastewater Treatment Plant. The treated water does not come back into the City's water service area, but is recharged into the groundwater basin and sold to the North Kern Water Storage District. There are no current plans to change this arrangement, nor does the City have any plans to expand to recycled water use in the future.

Table 6-8 - Wastewater Collected 2020

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
City of McFarland	Metered	339	City of McFarland	City of McFarland WWTP	No	No
Total Wastewater Collected from Service Area in 2020:		339				
** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Table 6-9 - Wastewater treatment and Discharge within Service Area 2020

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020	
☑	**No wastewater is treated or disposed of within the UWMP service area.** The supplier will not complete the table below.

Table 6-10 - Recycled Water Direct Beneficial Uses Within Service Area

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area	
☑	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Table 6-11 - 2015 UWMP Recycled Water Use Projection Compared to 2020

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual	
☑	Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.

Table 6-12 - Methods to Expand Future Recycled Water Use

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use	
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.
	Provide page location of narrative in UWMP

6.5 Energy Use

A new requirement for the 2020 UWMP is an energy intensity analysis of the City's water, wastewater, and recycled water systems, where applicable for a 12-month period. Water and energy sources are directly related to one another. It is incumbent upon the City to include any and all energy use related to the water supply system and the wastewater treatment plant.

The table shown below is a reflection of the City's energy intensity with respect to the City's potable water distribution system:

Table 6-13 - Table O-1A: Recommended Energy Reporting - Water Supply Process Approach

Urban Water Supplier: *City of McFarland*

Water Delivery Product (If delivering more than one type of product use Table O-1C)

Retail Potable Deliveries

Table O-1A: Recommended Energy Reporting - Water Supply Process Approach

Enter Start Date for Reporting Period	1/1/2020
End Date	12/31/2020

Urban Water Supplier Operational Control

		Water Management Process					
	Water Volume Units Used	Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility
Volume of Water Entering Process	MG	*473*	*182.5*	*473*	*90.6*	*473*	*473*
Energy Consumed (kWh)	*N/A*	*987236*	*101916*	*263737*	*40465*		*1393354*
Energy Intensity (kWh/vol. converted to MG)	*N/A*	*2087.2*	*558.4*	*557.6*	*446.6*	*0.0*	*2945.8*

Quantity of Self-Generated Renewable Energy

0 kWh

Data Quality *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

Estimate
Data Quality Narrative:
The data quality rests solely on the groundwater pumping depths and the required discharge pressures from the groundwater pumps and booster pumps into the distribution system.
Narrative:
- All of the water that is extracted from the groundwater sources will, at some point, go into the distribution system. - To calculate the energy use throughout the entire system, the groundwater pumps were first considered. Out of the three groundwater pumps, two of them pump groundwater straight into the system's distribution network. To calculate the energy consumed, the groundwater pumping depths were considered, as well as the discharge pressure required from the groundwater pumps to go into the distribution system. With a desired average distribution system pressure of 50 psi, the groundwater pump discharge pressure is 65 psi. A formula was used, with respect to groundwater pumping depths and required discharge pressure, to calculate the energy consumed going into the distribution system. This energy consumption value is solely reflected in "Extract and Divert" category, as no further energy was consumed for the water from these two groundwater sources to be conveyed to the distribution system. - The third groundwater well goes through an arsenic treatment plant before being pumped into the distribution system. This required the energy use calculation to be slightly different. To calculate the extraction energy, the groundwater pumping depth was used to calculate the energy required to pump the groundwater to the surface. This is reflected in the "Extract and Divert" category. To calculate the energy required for treatment, the required discharge pressure to go through the treatment plant and into the treatment plant storage tank was used to calculate the energy required for treatment, reflected in the "Treatment" category. - For the "Place into Storage" category, a portion of the groundwater pumped goes into the City's 1MG storage tank at an estimated pressure of 50 psi. This pressure was used to calculate the amount of additional energy consumed to place water into storage. This is reflected in the "Place into Storage" category. - Under the "Conveyance" category, water is conveyed from both the City's 1MG storage tank and from the arsenic treatment plant storage tank into the City system. The pump discharge pressure was utilized to calculate the total energy required to convey the water into the City's system. This is reflected in the "Conveyance" category. - Lastly, there are no distribution pumps within the system. Accordingly, there is no energy consumption reflected in the "Distribution" category. All of the water entering the distribution system is at the requisite system pressure by way of the energy consumed in the "Extract and Divert" and the "Conveyance" categories.

7 Water Service Reliability and Drought Risk Assessment

7.1 Overview of Water Service Reliability Assessment and the Drought Risk Assessment

Assessing water service reliability is the fundamental purpose for a Supplier to prepare a UWMP. Having evaluated the water supply and future water supply projections in Section 6, this key section examines the City's water supplies, water uses, and the resulting water supply reliability. Water supply reliability reflects the City's ability to meet the water needs of its customers under varying conditions during normal, single-dry, and multiple-dry water years. With respect to this UWMP, this water supply reliability is evaluated in two different assessments: The Water Service Reliability Assessment and the Drought Risk Assessment (DRA).

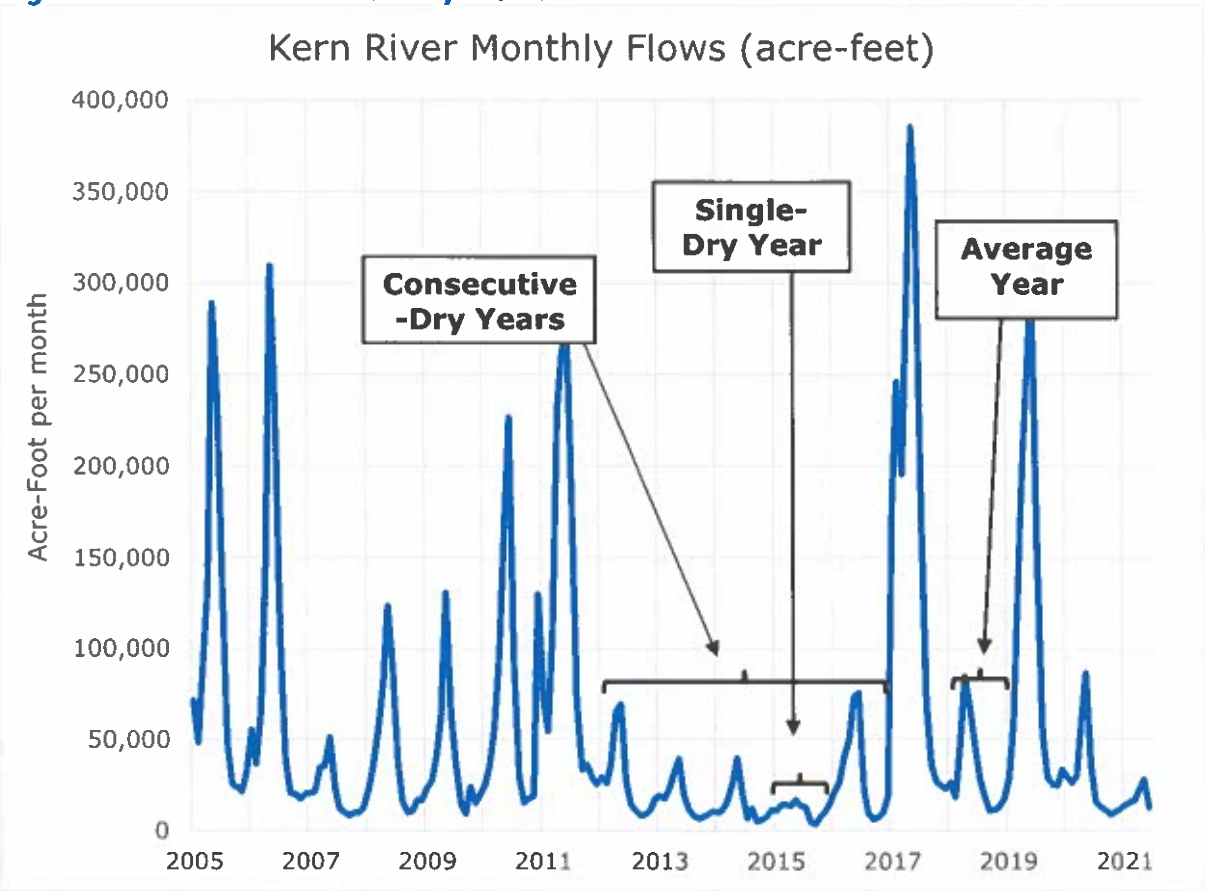
7.2 Water Service Reliability Assessment

Reliability is a measure of the City's ability to manage water shortages. Since the City relies solely on groundwater supplies, most water service reliability issues are related to groundwater availability, groundwater quality, and environmental effects.

As the year 2020 was considered a dry year per the San Joaquin Valley Index (CDEC 2021), and considering that the Kern County Subbasin has been designated to be in critical over-draft, the need for the City to properly understand its ability to reliably supply water to its customers is especially relevant.

In order to establish years from which the groundwater reliability may be calculated, the monthly inflows of the Kern River were utilized. This is because the Kern River is one the largest sources of natural recharge into the Tulare Lake Hydrologic Region and a good indicator of the climate for that year. The Kern River flow data is also a good indicator of annual rainfall and snow pack levels. Data can be seen in Figure 7-1.

Figure 7-1 - Kern River Monthly Flows[40]



Based on the historical data and future projections, the City was able to assess the future water reliability and was able to determine that the City will be able to meet the demands of its customers through 2040 during normal, single-dry, and multiple-dry years.

7.2.1 Constraints on Water Resources

7.2.1.1 Groundwater Availability

Groundwater for the City is pumped from the Kern County Subbasin, and this supply has always been sufficient to meet the City's demands. As mentioned previously in more detail in Section 4.5 of this UWMP, there are several adverse effects that can impact the groundwater supply. Environmental concerns will be considered in Section 7.2.1.3. It should be noted again that only 5.1 percent of all water usage in the Tulare Lake Hydrologic Region is under urban usage – McFarland

[40] CDEC data for Kern River Monitoring Station "KRB"

accounts for a small percentage of that use (0.37 percent of all water use). Therefore, the City's water supply availability is heavily dependent on the groundwater usage of other municipalities and the groundwater demand for agriculture. In addition, the City wells are constructed deep such that they may maintain proper water supply through the year 2040 even in the event of declining water levels.

The City water supply relies upon groundwater sources. These sources are protected against short-term outages that may arise from natural disasters (i.e., earthquakes) or from electricity outages with the use of emergency generators. In addition, the City of McFarland has some redundancy against power outages as the City has two different electric providers: PG&E on the west of Highway 99 and Southern California Edison on the east of Highway 99. In the event PG&E power went out on the west side of the highway, two sources would remain operational – the Browning Rd Well (2,000 gpm) and Well No.6 (900 gpm). In the event SCE power went out on the east side of the highway, all sources would remain operational since the Browning Rd Well has an emergency generator. The Browning Rd Well and Well 06 have a backup diesel generator, while the Garzoli Well does not.

Long term water shortages (resulting from catastrophic failures or climate change related) will require the drilling of new water wells, or result in lowering groundwater pumps. This would also result in an increase in cost for extracting water.

7.2.1.2 Groundwater Quality

A further constraint for the groundwater availability would be groundwater quality. Groundwater supplies which contain chemicals or certain minerals which exceed the Maximum Contaminant Levels (MCLs) set by the State Water Resources Control Board may result in the need to install different water treatment systems. The City's active groundwater wells utilize continuous chlorination treatment, and the Garzoli Well is currently treated for Arsenic removal. The Browning Rd Well is currently being monitored quarterly for 1,2,3-TCP, and has levels above the MCL. Plans have been completed to install a Granular Activated Carbon (GAC) treatment plant for the Browning Rd Well but work has not started on the project.

In light of these water quality issues, and the commitment to monitor and manage the City's water quality, the water reliability is not expected to be impacted by groundwater quality.

7.2.1.3 Environmental

While most of the environmental considerations have been discussed previously in Section 4.5 of this UWMP, it is worth discussing the environmental impacts related to groundwater reliability.

As groundwater levels decrease due to over-extraction and drought conditions, the amount of energy required to pump the groundwater water into the City's system will increase. This power increase will increase the cost of water production, which will be passed on City residents. As an economically disadvantaged community, this is a crucial issue.

Another issue with decreasing groundwater levels is the requirement for the City to lower the well pumps. This is a costly operation which will also necessitate for the groundwater well to be shut down during the lowering operation.

7.2.2 Reliability by Type

Using Figure 7-1, the periods for a Normal Year reliability assessment, single-dry year, and 5-year drought were ascertained and assessed for the City's ability to reliably supply water to its customers during the prescribed conditions.

Although there have been severe and frequent droughts during this time period, the City of McFarland has not had any issue with their water supply – the City has consistently been able to supply water to its customers. Therefore, the City's water supplies are expected to remain adequate and capable of meeting the projected water demands of its customers under all conditions.

An important note to make for Submittal Table 7-1 Retail (Table 7-1Table 7-1 - Basis of Water Year Data for Reliability Assessment) is that the water volume available is representative of the total groundwater supply that is available to the City within that specific year. This groundwater supply is calculated based on active groundwater wells at a conservative 50 percent utilization rate.

Table 7-1 - Basis of Water Year Data for Reliability Assessment

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	**Base Year** if not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location_____
		☑	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	**% of Average Supply**
Average Year	2018	1,235	100%
Single-Dry Year	2015	1,235	100%
Consecutive Dry Years 1st Year	2012	1,235	100%
Consecutive Dry Years 2nd Year	2013	1,235	100%
Consecutive Dry Years 3rd Year	2014	1,235	100%
Consecutive Dry Years 4th Year	2015	1,235	100%
Consecutive Dry Years 5th Year	2016	1,235	100%

Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Volume in MG. Supply based on 50% utilization of active groundwater wells

7.2.2.1 Normal-Year

This condition represents the water supply availability for the City during a normal year. A normal hydrological year occurred in 2018, where the total volumetric flow from the Kern River was similar to the average volumetric flow from the Kern River from 2005 to 2021.

7.2.2.2 Single-Dry Year Reliability

This is defined as the year that represents the lowest water supply available to the Supplier. The year used for the single-year analysis was 2015, which had the lowest

volumetric flow from the Kern River in the recorded period shown in Figure 7-1 - Kern River Monthly Flows. It happened to be near the tail-end of a 5-year drought that stretched from 2012 to 2016.

7.2.2.3 5-Year Drought

This represents the driest five-year historical sequence for the Supplier (Water Code Section 10612). This period was recorded to be from 2012 to 2016 – the driest period on record over the past 30 years.

7.3 Supply and Demand Assessment

Groundwater supply and demand may vary from year-to-year under normal conditions as well as under single-dry years and multiple-dry years.

7.3.1 Normal-Year

The overall water demands and supply under normal conditions have already been shown in Section 4 and 6 respectively. Table 7-2 below shows the projected supply and demand totals for a normal year.

Table 7-2 - Normal Year Supply and Demand

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison				
	2025	2030	2035	2040
Supply totals *(autofill from Table 6-9)*	1,496	1,496	1,496	1,496
Demand totals *(autofill from Table 4-3)*	556	626	707	774
Difference	940	870	789	722
NOTES:				

7.3.2 Single Dry Year

For a single dry year, the City has estimated a 5 percent increase over the normal projected demand, as shown below in Table 7-3. This 5 percent increase is taking into account higher water use due to less rainfall and a greater reliance on applied irrigation water by customers. The City is capable of meeting its customers' demand through the year 2040.

Table 7-3 - Single Dry Year Supply and Demand

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison				
	2025	2030	2035	2040
Supply totals*	1,496	1,496	1,496	1,496
Demand totals*	584	657	742	813
Difference	912	839	754	683
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*				
NOTES: Volume in MG; Total Demand = Normal Year Demand x 105%				

7.3.3 Multiple Dry Year

Typically, during a prolonged drought, an increase in demand is realized. However, as the drought continues, cities and municipalities introduce measures (higher water usage rates, ban on outdoor watering, etc.) that decrease the water demand as the drought continues. However, for this UWMP, during multiple dry years, a conservative approach is used to estimate a 5 percent increase in demand for five consecutive years.

Table 7-4 - Multiple Dry Years Supply and Demand

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison					
		2025*	2030*	2035*	2040*
First year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	584	657	742	813
	Difference	912	839	754	683
Second year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	597	677	754	827
	Difference	899	819	742	669
Third year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	613	693	770	842
	Difference	883	803	726	654
Fourth year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	630	709	784	857
	Difference	866	787	712	639
Fifth year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	646	723	799	870
	Difference	850	773	697	626
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES: Volume in MG; Demand Totals = Normal Year Demand x 105%					

7.3.4 Management Tools and Options

Existing and planned water management tools and options for the City that seek to maximize local resources are discussed here. The City of McFarland is managed as its own Groundwater Sustainability Agency (GSA), but it coordinates with SSJMUD, and the City of Delano. This coordination is directly for the purpose of managing:

current practices and existing plans, current groundwater conditions and future sustainability plans required to comply with SGMA regulations.

A desirable outcome for the SSJMUD, Delano, and McFarland is for a year-over-year positive net groundwater storage increase. According to the 2019 SSJMUD Management Area Plan, under current baseline conditions, by 2070 the district will be on average in overdraft by 2,800 – 6,000 MG per year (8.6 to 18.4 thousand acre-foot). It's important to note that this water balance calculation is without the addition of any planned projects for the future. This calculation only demonstrates the need for further action and management.

The sustainability goal of the District and the City's within the Kern County Subbasin is to balance the average annual inflow and outflow of water within the district so that a negative change in groundwater storage does not occur by 2040. To achieve this measurable objective, projects and management actions are being planned. The projects included are spreading and recovery facilities, recharge facilities, and intertie pipelines between other water districts. Achievement of this objective will provide many benefits: continuity of groundwater resources, protection of water quality, and decreases in the occurrence of land subsidence.

With respect to drought conditions, the City has within its municipal code different levels of restrictions based on the severity of the water shortage.

7.4 Drought Risk Assessment

In accordance with Water Code Section 10612, the Drought Risk Assessment (DRA) is based on the five driest consecutive years on record. The DRA provides the City with an opportunity to contemplate management of their water supplies during stressed hydrologic conditions. Furthermore, the DRA will help test the functionality of its Water Shortage Contingency Plan (WSCP) and understand the levels of response necessary for the management of water supplies. Together, the water service reliability assessment, the DRA, and the WSCP allow the City to evaluate a comprehensive picture of its short and long-term water service reliability. Lastly, this assessment considers historical water use and potential changes with respect to future supply and demand due to regulatory changes and effects from climate change.

7.4.1 Data, Methodology, and Basis

Since the City's sole supply of water comes from groundwater sources, the data used for the DRA will largely be the same as calculated in the water service reliability assessment; which obtained its data from the water use and water supply sections (Sections 4 and 6 respectively). Accordingly, the methodology and basis will largely be the same for DRA as it was for the water service reliability assessment. The methodology is unchanged because the groundwater supply for

the City is sufficient to meet its needs through 2040 even under 5-year drought conditions.

During a dry year, an increase in water demand is typically seen because of the effects of the drought: higher temperatures and less precipitation. These two effects lead to a higher water usage. But as a drought continues for several years, regulatory effects and water shortages will typically lead to a decline in the increase in water demand. As with the water service reliability assessment, the same methodology will be used for the DRA: a conservative 5 percent increase in water usage for every year over the baseline water demand assumptions.

7.4.2 Water Source Reliability

For the City of McFarland, the only supply of water comes from groundwater sources. As discussed in Section 7.3, the groundwater supply is sufficient to provide for the City's customers through 2040. Impacts that could affect the reliability of the groundwater sources could be classified as short-term and long-term. With respect to short-term impacts: power outages, a natural disaster such as an earthquake, or any required pump maintenance. Longer term impacts could be due to pump failure or anything requiring a groundwater well to be taken offline for any period of time, subsidence that damages the well casing, or water quality changes.

7.4.3 DRA Total Water Supply and Use Characterization

Table 7-5 below shows the tables for the City's DRA for the years 2021 to 2025. This table shows the total projected water use and the total supply available to the City for an assumed drought period from 2021 to 2025. These values include considerations related to climate change, regulatory, and other mitigating factors. It should also be noted that the City only pumps the amount of groundwater necessary to meet its demands and that the supply values shown in Table 7-5 are representative of the total groundwater pumping capacity at a 50% utilization rate.

Table 7-5 - Drought Risk Assessment Tables

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)	
2021	**Total**
Total Water Use	515
Total Supplies	1,235
Surplus/Shortfall w/o WSCP Action	721
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	721
Resulting % Use Reduction from WSCP action	0%

2022	Total
Total Water Use	531
Total Supplies	1,235
Surplus/Shortfall w/o WSCP Action	704
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	704
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	548
Total Supplies	1,496
Surplus/Shortfall w/o WSCP Action	948
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	948
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	565
Total Supplies	1,496
Surplus/Shortfall w/o WSCP Action	931
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	931
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	584
Total Supplies	1,496
Surplus/Shortfall w/o WSCP Action	912
Planned WSCP Actions (use reduction and supply augmentation)	

WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	912
Resulting % Use Reduction from WSCP action	0%
NOTES:	

8 Water Shortage Contingency Plan

8.1 Lay Description

Water shortages may happen at any time for a myriad of reasons. In order to prepare for any water shortage, including a catastrophic water shortage, the California Water Code Section 10632 requires that every urban retail supplier prepare and adopt a Water Shortage Continency Plan (WSCP). This WSCP is a detailed proposal for how the City plans to act in the case of an actual water shortage condition.

A water shortage is when water supply available is insufficient to meet the normally expected customer water use at a given point in time, for any specific reason. These specific reasons could be from, but are not limited to: earthquake, severe drought, fire, or regulatory action. The City has drafted a WSCP which provides for real-time water supply availability with structured steps designed to respond to any water shortage conditions.

In conjunction with the City of McFarland's Emergency Response Plan, this WSCP will be utilized as an operating manual for the City to prevent catastrophic service disruptions through proactive, rather than reactive, mitigation of water shortages. This WSCP is not intended to provide absolute direction, but rather provides options for how to manage water supply shortages. Official water shortage declarations by the City can include any combination of components described within this WSCP.

The UWMP Act requires that the WSCP include an urban water shortage contingency analysis that addresses different stages of action to be taken by the City in response to water supply shortages, including more than a 50 percent reduction in supply.

The City's Water Conservation Measures Ordinance (Ord. No. 040-2014 § 1, 11-13-14) in their Municipal Code was adopted and includes five different stages of mitigation measures to protect the health and safety of the citizens of the City, assure the maximum beneficial use of City water supplies, and attempt to provide sufficient water supplies to meet the basic needs of human consumption, sanitation, and fire protection. This WSCP incorporates these measures adopted by the City Municipal Code.

Consistent with California Water Code §10632, this WSCP includes six levels to address shortage conditions ranging from a water shortage up to 10 percent to a shortage greater than 50 percent. The comparison and compilation of the Municipal Code shortage level breakdown and the WSCP shortage level breakdown is further discussed in the WSCP.

8.2 WSCP Submittal Tables

A summary of the WSCP including the six stages of water shortage levels and the prescribed demand reduction actions can be found in Table 8-1 and Table 8-2 below. Given the City's sufficient water supply, there are no immediate plans to implement any stages of the water shortage contingency plan.

Table 8-1 - Water Shortage Contingency Plan Levels

Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	**Percent Shortage Range**	**Shortage Response Actions** *(Narrative description)*
1	Up to 10%	Demand Reduction (see Table 8-2)
2	Up to 20%	Demand Reduction (see Table 8-2)
3	Up to 30%	Demand Reduction (see Table 8-2)
4	Up to 40%	Demand Reduction (see Table 8-2)
5	Up to 50%	Demand Reduction (see Table 8-2)
6	>50%	Demand Reduction (see Table 8-2)
NOTES:		

Table 8-2 - Demand Reduction Actions (Stage #1)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #1)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
1	Prohibition on Waste of Water	2%	Prohibition on the Uses of water which allows substantial and unreasonable amounts of water to run into a gutter, ditch, or drain.	No

1	Prohibition on Waste of Water	3%	The excessive use, loss, or escape of water through breaks, leaks, or malfunctions in the water user's plumbing or distribution facilities for any period of time after such escape of water should reasonably have been discovered and corrected. It shall be presumed that a period of forty-eight hours after discovery is a reasonable time within which to correct such leak or break.	No
1	Expand Public Information Campaign	-	Maintain on ongoing public information campaign consisting of distribution of literature, speaking engagements, bill inserts, and conversation messages printed in local newspapers	No
1	Prohibition on Waste of Water	3%	The washing of vehicles, building exteriors, sidewalks, driveways, parking areas, tennis courts, patios or other paved areas without the use of a positive shut-off nozzle on the hose.	No
1	Estimated water Savings (%)	8%		
NOTES:				

Table 8-3 - Demand Reduction Actions (Stage #2)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #2)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** ***Drop Down List***
Add additional rows as needed				

2	Landscape - Limit landscape irrigation to specific days	6%	Irrigation utilizing individual sprinklers or sprinkler systems of lawns, gardens, landscaped areas, trees, shrubs, or other plans is permitted on the "odd/even" protocol between the hours of 8 p.m. and five a.m. on designated days.	No
2	Landscape - Restrict or prohibit runoff from landscape irrigation	2%	Water shall not spray or flow to any impermeable private or public surface, including but not limited to, walkways, driveways, sidewalks, alleys, streets, or storm drains.	No
2	Other	1%	The washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment is permitted only on designated irrigation days based on the "odd/even" protocol, between the hours of 8 a.m. and 6 p.m.. Such washing, when allowed, shall be done with a hand-held bucket, or a hand-held hose equipped with a positive shut-off nozzle for quick rinses.	No
2	Other water feature or swimming pool restriction	0.5%	The emptying and refilling of water to swimming pools / spas is permitted only on designated irrigation days between the hours of 7 p.m. and 10 a.m.	No
2	Water Features - Restrict water use for decorative water features, such as fountains	0.5%	The operation of any ornamental fountain or other structure making similar use of water is prohibited unless the fountain uses a recycling system.	No
2	Other	1%	The washing of sidewalks, driveways, parking areas, courts, patios, or other paved areas is absolutely prohibited, unless it is necessary for the	No

			health and safety, and welfare of the public.	
2	CII - Restaurants may only serve water upon request	0-1%	All new or substantially re-modeled eating and drinking establishments of any kind shall only provide drinking water to any person upon receipt of an express request. They shall also install water conserving pre-rinse nozzles.	No
2	CII - Commercial kitchens required to use pre-rinse spray valves	0-1%	All new or substantially re-modeled eating and drinking establishments of any kind shall install water conserving pre-rinse nozzles.	No
2	CII - Lodging establishment must offer opt out of linen service	0-1%	All new or substantially re-modeled hotels, motels, and bed and breakfast establishments shall provide customers the option of choosing not to have towels laundered daily. They must also have the best avaiable technology low flow toilets.	No
2	CII - Other CII restriction or prohibition	0-1%	All new or substantially re-modeled new carwash system shall have a water recirculation system.	No
2	Other - Require automatic shut of hoses	2%	No person shall allow water to flow freely from a hose that is not equipped with a positive action quick release shutoff valve or nozzle.	No
2	Expand Public Information Campaign	-	Utility aggressively continues its public information and education programs	No
2	Estimated water Savings (%)	12%		
NOTES:				

Table 8-4 - Demand Reduction Actions (Stage #3)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #3)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	2%	Washing of vehicles is prohibited except at commercial car washes or by mobile high pressure / low volume commercial services.	Yes
3	Landscape - Limit landscape irrigation to specific days	8%	Landscape watering with potable water shall be limited to one time per week for not more than fifteen minutes per watering zone from 6 p.m. Wednesday and 9 a.m. the following Thursday.	Yes
3			This subsection shall not apply to any drop irrigation system, irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.	
3	Other	-	Introduction of a permanent water meter on existing non-metered services and/or flow restrictors on existing metered services at customer's expense upon receipt of the second water violation	Yes
3	Estimated water Savings (%)	10%		
NOTES:				

Table 8-5 - Demand Reduction Actions (Stage #4)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #4)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** ***Drop Down List***
Add additional rows as needed				
4	Other	1%	Home reverse osmosis treatment units and water softeners shall be disconnected or turned off.	Yes
4	Landscape - Other landscape restriction or prohibition	1%	Watering of nonpublic playing fields with potable water is prohibited.	Yes
4	Landscape - Prohibit certain types of landscape irrigation	8%	Landscape watering with potable water shall be limited to one time per week from 6 p.m. on Wednesday and 9 a.m. the following Thursday by only drop irrigation, hand-held hoses, or if reclaimed water is utilized as permitted by law.	Yes
4			This subsection shall not apply to any drip irrigation systems, irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.	
4	Estimated water Savings (%)	10%		
NOTES:				

Table 8-6 - Demand Reduction Actions (Stage #5)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #5)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
5	Other water feature or swimming pool restriction	1%	Filling of residential swimming pools or spas with potable water is prohibited.	Yes
5	Landscape - Prohibit certain types of landscape irrigation	9%	Landscape irrigation with potable water is prohibited except with a watering can using water captured from indoor use.	Yes
			This subsection shall not apply to any drop ittigation system, irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.	
5	Estimated water Savings (%)	10%		
NOTES:				

Table 8-7 - Demand Reduction Actions (Stage #6)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #6)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
6	Other	as needed	Any additional water conservation measures adopted by the director of public works or his or her designee deemed necessary for the preservation of public health, safety, and welfare.	Yes
NOTES:				

9 Demand Management Measures

The goal of this section is to provide a comprehensive description of the water conservation programs that the City has implemented, is currently implementing, and plans to implement in order to meet its urban water use reduction targets.

9.1 Demand Measurement Measures for Retail Suppliers

This section is for the description of the City's implemented Demand Management Measures (DMMs). The City also is required to describe the nature and extent of each DMM implemented over the past five years, in addition to those planned for meeting urban water use targets (discussed in Section 9.3).

9.1.1 Water Waste Prevention Ordinances

A water waste prevention ordinance explicitly states the waste of water is to be prohibited. This ordinance may prohibit any actions that may waste water; such as prohibiting excessive water runoff, or requiring the use of shut-off nozzles with outdoor water hoses. This is an ordinance which is in place at all times, and is not dependent on a water shortage for implementation.

According to the City of McFarland Code of Ordinance Chapter 12.12 (Ord. 30 §1, 1958 and Ord. 30 §2, 1958),

> No person, firm, or corporation having in his or its possession or under his or its control any water pipe, hose, sprinkler, drain, or similar article shall permit the water therefrom to run on or across any sidewalk, public way or public street so as to injure the same or obstruct the free travel thereon.
>
> Any person, firm or corporation violating this chapter shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding five hundred dollars or by imprisonment in the county jail for not to exceed six months, or by both such fine and imprisonment.

Other wastewater prevention measures are contained with the WSCP and the City's Code of Ordinances with respect to water shortages.

9.1.2 Metering

Water Code Section 526 does not apply to the City, as the City of McFarland does not receive any water from the Central Valley Project. According to Water Code Section 527,

(a) an urban water supplier that is not subject to Section 526 shall do the following

(1) Install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.

The City has meters on all of its service connections and bills the customers monthly. The City has made the effort to install meters to improve water usage accuracy and supply feedback of water use data to customers.

9.1.3 Conservation Pricing

The City regularly reviews its water rates to ensure that it will be able to cover all water delivery associated costs, such as: water distribution, water system maintenance and operation, compliance with established water quality standards, and the cost of water related capital and infrastructure projects. The base monthly utility rates are on a tiered rate schedule, shown below:

Table 9-1 - Water Meter Usage Rate

Metered Water Usage Rate:	
First 1000 cubic feet	$13.53
1,001 cu. Ft. to 1,500 cu. Ft	+$1.11 per 100 cu. Ft.
1,501 cu. Ft. to 2,000 cu. Ft.	+$1.22 per 100 cu. Ft.
2,001 cu. Ft. and above	+$1.38 per 100 cu. Ft.

9.1.4 Public Education and Outreach

The City has several different ways to educate the public on existing water conservation measures.

Via the City's website, water rate schedules are accessible as well as access to pay any bills online. The site is easily accessible and could provide a suitable "home page" to update the community and other interested parties with respect to water shortages, water rate changes, etc. The City also sends out water bills monthly, which provides another opportunity to communicate with their customers.

Another important source of communication for the City is through their social media accounts, primarily via the use of Facebook. Their Facebook webpage is consistently updated with events going on in the City and with information relevant to McFarland residents.

There are currently no school education programs geared towards teaching water conservation towards students. Although the City is considering different programs to reach out to young residents for how they can help with water conservation.

9.1.5 Programs to Assess and Manage Distribution System Real Loss

The City's Public Works Department diligently monitors for leaks within the City's water supply system. They monitor through regular physical inspection, and through the installation of water meters for all of the service connections. A customer's water bill may be flagged if there is an unusually high billing, and an investigation ensue to determine the reason for the high amount of water use.

9.1.6 Water Conservation Program Coordination and Staffing Support

The City currently does not have a Water Conservation Program.

9.2 Planned Implementation to Achieve Water Use Targets

9.2.1 Implementation Over the Past Five Years

Over the past 5 years, it can be seen that the water use, per capita, has dropped 26 percent overall. Because this is a per capita value, the population increase over this five-year period is not relevant. There are several measures implemented to decrease water use in the City:

- Installation of water meters
- Mandatory shut-off nozzle for outdoor hoses
- Water restrictions for wasteful use

9.3 Water Use Objectives (Future Requirements)

Efficient water use is the most cost-effective way to achieve long term conservation goals, as well as provide the water supply reliability needed to adapt to longer and more intense anticipated droughts in California. Beginning in 2023, urban water suppliers are required to calculate and report their annual water use objective (WUO), submit validated water audits annually, and to implement and report Best Management Practice (BMP) CII performance measures.

The urban WUO is based on the efficient water use of the following:

- Aggregate Residential Indoor Use
- Aggregate Residential Outdoor Use
- Aggregate CII Outdoor Use (outdoor irrigation landscape areas with dedicated irrigation meters or equivalent technology)
- Aggregate Water Loss
- Aggregate Variances
- Bonus Incentive (up to 15 percent of objective)

The indoor residential water use standard will be 55 gallons per person per day (gallons per capita daily, or GPCD) until January 2025. This standard will decrease to 50 GPCD in January 2030. In calculating this indoor use objective, urban water agencies will aggregate indoor water use across their service area.

The outdoor water use standards will vary from region to region; where land cover, climate, and other factors determined by the DWR will be contributing factors to the

calculation of the City's outdoor use standards. The State Water Resources Control Board will adopt standards by June 2022.

The water leaks standard has been established, and is calculated from annual water loss reports.

The DWR and State Water Resources Control Board are working collaboratively to define performance measures for CII water use. Performance measures should be adopted by June 2022.

The City will continue with its strategy of encouraging efficient water use, installing water efficient fixtures within the home, and being conscious of how the wasting of water can be detrimental to the City.

10 Plan Adoption, Submittal, and Implementation

10.1 Inclusion of All 2020 Data

This section of the UWMP includes the water use and planning data for the year 2020.

10.2 Notice of Public Hearing

The water code states that cities, counties, and other relevant agencies, and the public must be notified that the City of McFarland will be reviewing this UWMP and considering amendments to the plan. These notices were sent **at least 60 days** prior to the public hearing. The notice to the public and letters to relevant agencies may be found in Appendix E – Notice of Public Hearing.

10.2.1 Notice to Cities, Counties, and Other Relevant Agencies

Table 10-1 - Notification to Cities and Counties and Other Agencies

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
City of McFarland	Yes	Yes
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Kern County	Yes	Yes
Other Agency Name	60 Day Notice	Notice of Public Hearing
Kern Groundwater Authority	Yes	Yes
Southern San Joaquin Municipal Utility District	Yes	Yes
NOTES:		

10.2.2 Notice to the Public

A public notice for the Public to view the 2020 UWMP and WSCP prior to the hearing was published in the "McFarland Today" Newspaper between Friday October 8, 2021 and Thursday October 14, 2021. The notice included the date of the hearing, location, and contact information for the public to access a copy of the draft of the 2020 UWMP. A copy of the notice is included in Appendix E – Notice of Public Hearing.

10.3 Public Hearing and Adoption

The deadline for public comments on the UWMP was Tuesday, December 7, 2021. The final plan was formally adopted by the City Council of the City of McFarland on Thursday, December 9, 2021. The UWMP was submitted to the California Department of Water Resources (DWR) within 30 days of approval.

Appendix F – Adopted UWMP Resolution presents a copy of the signed Resolution of Plan Adoption.

10.4 Plan Submittal

The UWMP and WSCP were submitted to the DWR within 30 days of the Plan's adoption. The UWMP was submitted electronically through the Water Use Efficiency Data Portal, an online submittal tool. Copies of the UWMP were sent to the California state Library and to the cities, counties, and the public agencies listed in Table 10-1 within 30 days of adoption.

10.5 Public Availability

The City's website has made copies of the UWMP and WSCP available for review.

10.6 Notification to Public Utilities Commission

As an urban water supplier regulated by the California Public Utilities Commission, the City has included the 2020 UWMP and WSCP as part of its general rate case filings.

10.7 Amending an Adopted UWMP or Water Shortage Contingency Plan

If the 2020 UWMP and WSCP is amended, each of the steps for notification, public hearing, adoption, and submittal will be followed.

Appendix A – Water Code Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Section 1.2
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Executive Summary
x	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1; Appendix H (Adopted Resolution)
x	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.2
x	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within	Plan Preparation	Section 2.2

				the service area prior to and during the preparation of the plan and contingency plan.		
x		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	N/A
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A
x	x	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 3.1
x	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3
x	x	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 3.4.1
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 3.4.2
x	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 3.4.2
x	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 3.4.3
x	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2; 4.3
x	x	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4.2.5

x	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	System Water Use	Section 4.3
x	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 4.3
x	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 4.2.5
x	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.4
x	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 4.5
x		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 5.2; 5.3
x		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5.2; 5.3
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	
x		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	N/A

x		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	N/A
x		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 5.1; 5.2; Appendix C
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 7.3
x	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, *including changes in supply due to climate change.*	System Supplies	Section 7.3
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	N/A
x	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 6.2.5; 6.3
x	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 6.1; 6.2.5
x	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.1

x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.3; Appendix H
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6.2.2
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	N/A - not adjudicated
x	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 6.2.3
x	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2.1
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 6.1
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 2.2
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.4
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies	Section 6.4

					(Recycled Water)	
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.4
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.4
x	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.4
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.4
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 4.2.1
x	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 6.4
x	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 6.2; 6.3
x	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers,	Section 6.5

					Energy Intensity	
x	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.2.1.2
x	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.2.1.1
x	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.2.2; 7.3
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 7.4.3
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 7.4.1
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 7.4.2
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 7.4.3

x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 7.2; 7.4.1
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Section 8; Appendix D
x	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	Appendix D; Section 1 of WSCP
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	Section 2.2.1 of WSCP
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	Section 2.1; 2.2 of WSCP
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	Section 2.2 of WSCP
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The	Water Shortage Contingency Planning	Section 3 of WSCP

				shortage levels shall also apply to a catastrophic interruption of supply.		
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	Section 3 of WSCP
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	N/A
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Section 3; 4.1 of WSCP
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Section 4.3 of WSCP
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	Section 4.4 of WSCP
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	Section 2.2.3 of WSCP
x	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	Section 4.6 of WSCP

x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	Section 5 of WSCP
x	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	Section 5 of WSCP
x		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	Section 6 of WSCP
x		Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Section 7; 7.1 of WSCP
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	Section 7.1 of WSCP
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	Section 5; 7; 7.1 of WSCP
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Section 8.1 of WSCP
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Section 8.2 of WSCP

x		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	Section 8.3 of WSCP
x		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Section 9 of WSCP
x		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	Section 11 of WSCP
x	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 12 of WSCP
x	x	Section 8.12	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	Section 12 of WSCP
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 9.2.1
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and	Plan Adoption, Submittal, and Implementation	Section 10.2

				economic impact of water use targets (recommended to discuss compliance).		
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 10.2.1; 10.2.2
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 10
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Section 10.3; 10.4; 10.5
x	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 10.2
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.2.1; 10.5
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 10.4

x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.4; 10.5
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 12 of WSCP
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	Section 10.6
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	N/A

Appendix B – DWR Submittal Tables

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
Add additional rows as needed			
CA1510013	City of McFarland	2,849	453
	TOTAL	2,849	453
** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: Volume in MG			

Submittal Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* (select from drop down list)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables are in calendar years
☐	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP * (select from drop down)	
Unit	MG
** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

Submittal Table 2-4 Retail: Water Supplier Information Exchange
The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631.
Wholesale Water Supplier Name
Add additional rows as needed
NOTES: Not applicable for the City, as the City is it's own water supplier.

Submittal Table 3-1 Retail: Population - Current and Projected					
Population Served	2020	2025	2030	2035	2040
	15,800	16,661	18,770	21,121	23,690
NOTES:					

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual			
Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Add additional rows as needed			
Other Potable	All Residential	Drinking Water	386
Other Potable	Commercial / Institutional	Drinking Water	67
Losses	Non-Revenue Water	Drinking Water	16
		TOTAL	469

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*
[2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected

Use Type	Additional Description (as needed)	Projected Water Use[2] *Report To the Extent that Records are Available*			
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040
Add additional rows as needed					
Other Potable	All Residential	462	520	588	642
Other Potable	Commercial and Institutional	75	84	94	105
Losses	Non-Revenue Water	19	22	25	27
TOTAL		556	626	707	774

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Volume MG

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)					
	2020	2025	2030	2035	2040
Potable Water, Raw, Other Non-potable *From Tables 4-1R and 4-2 R*	469	556	626	707	774
Recycled Water Demand[1] *From Table 6-4*	0	0	0	0	0
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]					
TOTAL WATER USE	469	556	626	707	774

[1]Recycled water demand fields will be blank until Table 6-4 is complete
*[2] Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*

NOTES:

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss [1,2]
01/2016	7.9
01/2017	2
01/2018	-18.3
01/2019	42.2
01/2020	15.8
[1] Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. *[2] Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES: The calculated water loss volume for 2018 is attributed to data collection and instrument error	

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	Section 8 and 9
Are Lower Income Residential Demands Included in Projections? *Drop down list (y/n)*	Yes
NOTES:	

Submittal Table 5-1 Baselines and Targets Summary
From SB X7-7 Verification Form
Retail Supplier or Regional Alliance Only

Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*2000*	*2009*	*144*	*115*
5 Year	*2003*	*2007*	*141*	

**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

Submittal Table 5-2: 2020 Compliance
From SB X7-7 2020 Compliance Form
Retail Supplier or Regional Alliance Only

2020 GPCD				
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*	2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
81	*0*	*81*	*115*	*Y*

**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

Submittal Table 6-1 Retail: Groundwater Volume Pumped

☐	Supplier does not pump groundwater. The supplier will not complete the table below.
☐	All or part of the groundwater described below is desalinated.

Groundwater Type *Drop Down List May use each category multiple times*	Location or Basin Name	2016 *	2017 *	2018 *	2019 *	2020 *
Add additional rows as needed						
Alluvial Basin	San Joaquin Valley Groundwater Basin - Kern County Subbasin	521	515	514	491	469
	TOTAL	521	515	514	491	469

** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
City of McFarland	Metered	339	City of McFarland	City of McFarland WWTP	No	No
Total Wastewater Collected from Service Area in 2020:		339				

** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020

☑ **No wastewater is treated or disposed of within the UWMP service area.** The supplier will not complete the table below.

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area

☑ Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual

☑ Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use	
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.
Page 55, Section 6.4	Provide page location of narrative in UWMP

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Supplier Name*				
Add additional rows as needed						
New Municipal Well	No		New Water Supply Well	2022	All Year Types	261
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Submittal Table 6-8 Retail: Water Supplies — Actual				
Water Supply		2020		
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Groundwater (not desalinated)	San Joaquin Valley Groundwater Basin	1,235	Drinking Water	
	Total	1,235		0
*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.				
NOTES: Water Demand was 469 MG for 2020.				

Submittal Table 6-9 Retail: Water Supplies — Projected					
Water Supply		Projected Water Supply * Report To the Extent Practicable			
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	2025	2030	2035	2040
		Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Add additional rows as needed					
Groundwater (not desalinated)	San Joaquin Valley Groundwater Basin	1,496	1,496	1,476	1,496
	Total	4,488	1,496	4,468	1,496
*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.					
NOTES: These numbers denote water supply available, not actual water demand.					

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	**Base Year** If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location
		☑	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	**% of Average Supply**
Average Year	2018	1,235	100%
Single-Dry Year	2015	1,235	100%
Consecutive Dry Years 1st Year	2012	1,235	100%
Consecutive Dry Years 2nd Year	2013	1,235	100%
Consecutive Dry Years 3rd Year	2014	1,235	100%
Consecutive Dry Years 4th Year	2015	1,235	100%
Consecutive Dry Years 5th Year	2016	1,235	100%

Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Volume in MG. Supply based on 50% utilization of active groundwater wells

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison				
	2025	2030	2035	2040
Supply totals *(autofill from Table 6-9)*	1,496	1,496	1,496	1,496
Demand totals *(autofill from Table 4-3)*	556	626	707	774
Difference	940	870	789	722
NOTES:				

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison				
	2025	2030	2035	2040
Supply totals*	1,496	1,496	1,496	1,496
Demand totals*	584	657	742	813
Difference	912	839	754	683
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*				
NOTES: Volume in MG; Total Demand = Normal Year Demand x 105%				

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison					
		2025*	2030*	2035*	2040*
First year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	584	657	742	813
	Difference	912	839	754	683
Second year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	597	677	754	827
	Difference	899	819	742	669
Third year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	613	693	770	842
	Difference	883	803	726	654
Fourth year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	630	709	784	857
	Difference	866	787	712	639
Fifth year	Supply totals	1,496	1,496	1,496	1,496
	Demand totals	646	723	799	870
	Difference	850	773	697	626
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES: Volume in MG; Demand Totals = Normal Year Demand x 105%					

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)

2021	Total
Total Water Use	515
Total Supplies	1,235
Surplus/Shortfall w/o WSCP Action	721
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	721
Resulting % Use Reduction from WSCP action	0%

2022	Total
Total Water Use	531
Total Supplies	1,235
Surplus/Shortfall w/o WSCP Action	704
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	704
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	548
Total Supplies	1,496
Surplus/Shortfall w/o WSCP Action	948
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	948
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	565
Total Supplies	1,496

Surplus/Shortfall w/o WSCP Action	931
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	931
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	584
Total Supplies	1,496
Surplus/Shortfall w/o WSCP Action	912
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	912
Resulting % Use Reduction from WSCP action	0%
NOTES:	

Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	**Percent Shortage Range**	**Shortage Response Actions** ***(Narrative description)***
1	Up to 10%	Demand Reduction (see Table 8-2)
2	Up to 20%	Demand Reduction (see Table 8-2)
3	Up to 30%	Demand Reduction (see Table 8-2)
4	Up to 40%	Demand Reduction (see Table 8-2)
5	Up to 50%	Demand Reduction (see Table 8-2)
6	>50%	Demand Reduction (see Table 8-2)
NOTES:		

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #1)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** ***Drop Down List***
Add additional rows as needed				
1	Prohibition on Waste of Water	2%	Prohibition on the Uses of water which allows substantial and unreasonable amounts of water to run into a gutter, ditch, or drain.	No
1	Prohibition on Waste of Water	3%	The excessive use, loss, or escape of water through breaks, leaks, or malfunctions in the water user's plumbing or distribution facilities for any period of time after such escape of water should reasonably have been discovered and corrected. It shall be presumed that a period of forty-eight hours after discovery is a reasonable time within which to correct such leak or break.	No
1	Expand Public Information Campaign	-	Maintain on ongoing public information campaign consisting of distribution of literature, speaking engagements, bill inserts, and conversation messages printed in local newspapers	No
1	Prohibition on Waste of Water	3%	The washing of vehicles, building exteriors, sidewalks, driveways, parking areas, tennis courts, patios or other paved areas without the use of a positive shut-off nozzle on the hose.	No
1	Estimated water Savings (%)	8%		

NOTES:

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #2)

Shortage Level	Demand Reduction Actions *Drop down list* *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *For Retail Suppliers Only Drop Down List*
Add additional rows as needed				
2	Landscape - Limit landscape irrigation to specific days	6%	Irrigation utilizing individual sprinklers or sprinkler systems of lawns, gardens, landscaped areas, trees, shrubs, or other plans is permitted on the "odd/even" protocol between the ours of 8 p.m. and five a.m. on designated days.	No
2	Landscape - Restrict or prohibit runoff from landscape irrigation	2%	Water shall not spray or flow to any impermeable private or public surface, including but not limited to, walkways, driveways, sidewalks, alleys, streets, or storm drains.	No
2	Other	1%	The washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment is permitted only on designated irrigation days based on the "odd/even" protocol, between the hours of 8 a.m. and 6 p.m.. Such washing, when allowed, shall be done with a hand-held bucket, or a hand-held hose equipped with a positive shut-off nozzle for quick rinses.	No
2	Other water feature or swimming pool restriction	0.5%	The emptying and refilling of water to swimming pools / spas is permitted only on designated irrigation days between the hours of 7 p.m. and 10 a.m.	No

2	Water Features - Restrict water use for decorative water features, such as fountains	0.5%	The operation of any ornamental fountain or other structure making similar use of water is prohibited unless the fountain uses a recycling system.	No
2	Other	1%	The washing of sidewalks, driveways, parking areas, courts, patios, or other paved areas is absolutely prohibited, unless it is necessary for the health and safety, and welfare of the public.	No
2	CII - Restaurants may only serve water upon request	0-1%	All new or substantially re-modeled eating and drinking establishments of any kind shall only provide drinking water to any person upon receipt of an express request. They shall also install water conserving pre-rinse nozzles.	No
2	CII - Commercial kitchens required to use pre-rinse spray valves	0-1%	All new or substantially re-modeled eating and drinking establishments of any kind shall install water conserving pre-rinse nozzles.	No
2	CII - Lodging establishment must offer opt out of linen service	0-1%	All new or substantially re-modeled hotels, motels, and bed and breakfast establishments shall provide customers the option of choosing not to have towels laundered daily. They must also have the best avaiable technology low flow toilets.	No
2	CII - Other CII restriction or prohibition	0-1%	All new or substantially re-modeled new carwash system shall have a water recirculation system.	No
2	Other - Require automatic shut of hoses	2%	No person shall allow water to flow freely from a hose that is not equipped with a positive action quick release shutoff valve or nozzle.	No

2	Expand Public Information Campaign	-	Utility aggressively continues its public information and education programs	No
2	Estimated water Savings (%)	12%		
NOTES:				

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #3)

Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	2%	Washing of vehicles is prohibited except at commercial car washes or by mobile high pressure / low volume commercial services.	Yes
3	Landscape - Limit landscape irrigation to specific days	8%	Landscape watering with potable water shall be limited to one time per week for not more than fifteen minutes per watering zone from 6 p.m. Wednesday and 9 a.m. the following Thursday.	Yes
3			This subsection shall not apply to any drop irrigation system, irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.	
3	Other	-	Introduction of a permanent water meter on existing non-metered services and/or flow restrictors on existing metered services at customer's expense upon receipt of the second water violation	Yes

3	Estimated water Savings (%)	10%		
NOTES:				

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #4)

Shortage Level	Demand Reduction Actions *Drop down list* *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *For Retail Suppliers Only Drop Down List*
Add additional rows as needed				
4	Other	1%	Home reverse osmosis treatment units and water softeners shall be disconnected or turned off.	Yes
4	Landscape - Other landscape restriction or prohibition	1%	Watering of nonpublic playing fields with potable water is prohibited.	Yes
4	Landscape - Prohibit certain types of landscape irrigation	8%	Landscape watering with potable water shall be limited to one time per week from 6 p.m. on Wednesday and 9 a.m. the following Thursday by only drop irrigation, hand-held hoses, or if reclaimed water is utilized as permitted by law.	Yes
4			This subsection shall not apply to any drip irrigation systems, irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.	
4	Estimated water Savings (%)	10%		

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #5)

Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
5	Other water feature or swimming pool restriction	1%	Filling of residential swimming pools or spas with potable water is prohibited.	Yes
5	Landscape - Prohibit certain types of landscape irrigation	9%	Landscape irrigation with potable water is prohibited except with a watering can using water captured from indoor use.	Yes
			This subsection shall not apply to any drop ittigation system, irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.	
5	Estimated water Savings (%)	10%		
NOTES:				

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #6)

Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
6	Other	as needed	Any additional water conservation measures adopted by the director of public works or his or her designee deemed necessary for the preservation of public health, safety, and welfare.	Yes

NOTES:

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
Add additional rows as needed			
NOTES: There are currently no supply augmentation actions planned for the City.			

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
City of McFarland	Yes	Yes
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Kern County	Yes	Yes
Other Agency Name	60 Day Notice	Notice of Public Hearing
Kern Groundwater Authority	Yes	Yes
Southern San Joaquin Municipal Utility District	Yes	Yes
NOTES:		

Appendix C – SBX7-7 Verification and Compliance Forms

SBx7-7 Verification Form Tables

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Million Gallons
**The unit of measure must be consistent with Submittal Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2004 total water deliveries	568	Million Gallons
	2004 total volume of delivered recycled water	-	Million Gallons
	2004 recycled water as a percent of total deliveries	0%	**See Note 1**
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	2000	
	Year ending baseline period range[3]	2009	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range[4]	2007	

[1]If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15year baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10- to 15-year period.

[2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.

[3]The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.

[4]The ending year for the 5 year baseline period must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☑	**1. Department of Finance** (DOF) or **American Community Survey** (ACS)
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review

NOTES:

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	2000	9,699
Year 2	2001	9,973
Year 3	2002	10,276
Year 4	2003	10,606
Year 5	2004	10,945
Year 6	2005	11,592
Year 7	2006	11,795
Year 8	2007	11,507
Year 9	2008	11,931
Year 10	2009	12,064
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	10,606
Year 2	2004	10,945
Year 3	2005	11,333
Year 4	2006	11,795
Year 5	2007	11,507
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *

Baseline Year *Fm SB X7-7 Table 3*		Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	Deductions					Million Gallons
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	Annual Gross Water Use
10 to 15 Year Baseline - Gross Water Use								
Year 1	2000	536	-	-	-	-	-	536
Year 2	2001	587	-	-	-	-	-	587
Year 3	2002	607	-	-	-	-	-	607
Year 4	2003	586	-	-	-	-	-	586
Year 5	2004	568			-		-	568
Year 6	2005	577			-		-	577
Year 7	2006	577			-		-	577
Year 8	2007	577			-		-	577
Year 9	2008	577			-		-	577
Year 10	2009	577			-		-	577
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-

Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**577**
5 Year Baseline - Gross Water Use								
Year 1	2003	586	-	-	-	-	-	586
Year 2	2004	568	-	-	-	-	-	568
Year 3	2005	577			-		-	577
Year 4	2006	577			-		-	577
Year 5	2007	577			-		-	577
5 year baseline average gross water use								**577**

* **Units of measure** (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	City of McFarland
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System[1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2000	536		536
Year 2	2001	587		587
Year 3	2002	607		607
Year 4	2003	586		586
Year 5	2004	568		568
Year 6	2005	577		577
Year 7	2006	577		577
Year 8	2007	577		577
Year 9	2008	577		577
Year 10	2009	577		577
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				

Year 1	2003	586		586
Year 2	2004	568		568
Year 3	2005	577		577
Year 4	2006	577		577
Year 5	2007	577		577

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

[2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Data unavailable between 2005-2009. An average of the available gross water data was utilized.

SB X7-7 Table 5: Baseline Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	2000	9,699	536	151
Year 2	2001	9,973	587	161
Year 3	2002	10,276	607	162
Year 4	2003	10,606	586	151
Year 5	2004	10,945	568	142
Year 6	2005	11,592	577	136
Year 7	2006	11,795	577	134
Year 8	2007	11,507	577	137
Year 9	2008	11,931	577	132
Year 10	2009	12,064	577	131
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**144**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use

Year 1	2003	10,606	586	151
Year 2	2004	10,945	568	142
Year 3	2005	11,333	577	139
Year 4	2006	11,795	577	134
Year 5	2007	11,507	577	137
5 Year Average Baseline GPCD				141

NOTES: Data unavailable between 2005-2009. An average of available gross water use data was utilized.

SB X7-7 Table 6: Baseline GPCD
Summary From Table SB X7-7 Table 5

10-15 Year Baseline GPCD	144
5 Year Baseline GPCD	141

NOTES:

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		**Supporting Tables**
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator *Located in the WUE Data Portal at wuedata.water.ca.gov* Resources *button*
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
144	**115**
NOTES:	

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target					
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	**Calculated 2020 Target [2]**			**Confirmed 2020 Target[4]**
		As calculated by supplier in this SB X7-7 Verification Form	**Special Situations[3]**		
			Prorated 2020 Target	Population Weighted Average 2020 Target	
141	134	115			**115**

*[1]**Maximum 2020 Target** is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.*
*[2]**Calculated 2020 Target** is the target calculated by the Supplier based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target. Supplier may only enter one calculated target.*
*[3]**Prorated targets and population weighted target** are allowed for special situations only. These situations are described in Appendix P, Section P.3*
*[4] **Confirmed Target** is the lesser of the Calculated 2020 Target (C5, D5, or E5) or the Maximum 2020 Target (Cell B5)*

NOTES: Although this is a newly calculated baseline for the 2020 UWMP, a prorated target was not calculated. This is because the service area is still not subject to UWMP requirements (under 3,000 customers and 3 AFY water deliveries).

SBx7-7 Compliance Form Tables

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* *(select one from the drop down list)*
Million Gallons
**The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.*
NOTES:

SB X7-7 Table 2: Method for 2020 Population Estimate	
Method Used to Determine 2020 Population (may check more than one)	
☑	**1. Department of Finance** (DOF) or **American Community Survey** (ACS)
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES: Extrapolation of US Census and ACS Data	

SB X7-7 Table 3: 2020 Service Area Population	
2020 Compliance Year Population	
2020	15,800
NOTES:	

SB X7-7 Table 4: 2020 Gross Water Use

Compliance Year 2020	2020 Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	2020 Deductions					2020 Gross Water Use
		Exported Water *	Change in Dist. System Storage* (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use*	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	
	469			-		-	**469**

* **Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES:

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment
Complete one table for each source.

Name of Source	City of McFarland
This water source is *(check one)*:	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	469	-	469

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.*
[2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES

SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)

2020 Gross Water *Fm SB X7-7 Table 4*	**2020 Population** *Fm SB X7-7 Table 3*	**2020 GPCD**
469	15,800	**81**

NOTES:

SB X7-7 Table 9: 2020 Compliance							
	Optional Adjustments to 2020 GPCD						
	Enter "0" if Adjustment Not Used						
Actual 2020 GPCD[1]	Extraordinary Events[1]	Weather Normalization[1]	Economic Adjustment[1]	TOTAL Adjustments[1]	Adjusted 2020 GPCD [1] *(Adjusted if applicable)*	2020 Confirmed Target GPCD [1, 2]	**Did Supplier Achieve Targeted Reduction for 2020?**
81	-	-	-	-	81	115	**YES**

[1] *All values are reported in GPCD* [2]

***2020 Confirmed Target GPCD** is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.*

NOTES:

Appendix D – Water Shortage Contingency Plan

Water Shortage Contingency Plan

City of McFarland

August 2021

Prepared by:

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Introduction

The Water Shortage Contingency Plan (WSCP) is a strategic planning process that the City of McFarland, "the City," engages to prepare for and respond to water shortages. This WSCP complies with the California Water Code Section 10632, which requires every urban water supplier to prepare and adopt a WSCP as part of its Urban Water Management Plan. This is a detailed proposal for how the City intends to act in the case of an actual water shortage condition. The objective of this WSCP is to ensure that the City has established the necessary resources and management responses needed to: protect health and human safety, minimize economic disruption, and preserve environmental and community assets in the event of a water supply shortage.

This plan is broken up into the following sections:

- Water Supply Reliability Analysis
- Annual Water Supply and Demand Assessment Procedures
- Six Standard Water Shortage Stages
- Shortage Response Actions
- Communication Protocols
- Compliance and Enforcement
- Legal Authorities
- Financial Consequences of WSCP Activation
- Monitoring and Reporting
- WSCP Refinement Procedures
- Special Water Feature Distinction
- Plan Adoption, Submittal, and Availability

1 Water Supply Reliability Analysis

The City's water system service area is located in the Kern County Subbasin, which is a part of the greater San Joaquin Valley Basin. In the most recent evaluation of California's groundwater basins, the California Department of Water Resources (DWR) categorized the Subbasin to be in "critical overdraft" according to the Sustainable Groundwater Management Act (SGMA). This is especially relevant for the City, as the sole supply of water for its customers comes from groundwater resources. More detail is provided in Section 6 of the City's 2020 Urban Water Management Plan (UWMP).

The City's UWMP also assessed the reliability of its water supply in Section 7 of the UWMP. It was shown that even in a multiple year-long drought, the City could reliably provide water to its customers. The expectation of water reliability extends into 2040, with respect to all of the different hydrological conditions evaluated in the water supply reliability assessment and the Drought Risk Assessment (DRA). Even though water shortage conditions for the City are not expected to arise due to drought, it is considered good practice to address potential water supply shortfalls from any cause, such as: droughts, electrical outage, regulatory imposed restrictions, or any catastrophic events (i.e., earthquake).

Under SGMA, Groundwater Sustainability Agencies (GSAs) have the authority to authorize projects and management actions in order to help their jurisdictions reach their sustainability goal. The City's water supply is within the McFarland Groundwater Sustainability Agency, which falls under the Kern Groundwater Sustainability Plan (GSP) Area. The Cit's service area is overlayed by the Southern San Joaquin Municipal Utility District (SSJMUD). Therefore, the City cooperates with SSJMUD with respect to groundwater sustainability districts. The currently authorized and planned projects are for spreading grounds, recharge facilities, and pipeline interties between different management districts. Currently, there are no planned or proposed projects, or management actions related to: groundwater pumping allocations, pumping fees, or other provisions expected to impact the groundwater supply to the City (with respect to pumping capacity and cost).

2 Annual Water Supply and Demand Assessment Procedures

On an annual basis, the City will prepare an annual Water Supply and Demand Assessment (SDA) and submit an Annual Water Shortage Assessment Report to the DWR. The assessment will assume that the following year will experience a shortfall of 20 percent. This corresponds to Water Shortage Level 3, further described in Section 3 in this report. Each element is described below.

Consistent with the California Water Code 13632.1, the City will perform and submit a SDA to DWR by July 1st of each year beginning in 2022.

2.1 Decision-Making Process

This written process describes the functional steps to determine the City's water supply availability each year.

From the UWMP Guidebook:

> For example, a Supplier's process may include a schedule or timeline for when certain steps occur that include a formal presentation to its elected body with a request that the body vote on the findings of the Annual Assessment and appropriately trigger any recommendations for specific shortage response actions resulting from the assessment.

2.2 Data and Methodologies

This is a description of key data inputs and Annual Assessment methodologies used to evaluate the water service reliability for the current year and for one dry year. As noted above, the dry year will be a 20 percent water shortfall.

2.2.1 Evaluation Criteria

The evaluation criteria will help the City determine whether they are likely to experience a water shortage in the coming year.

- **Groundwater Well Operational Constraints**: This includes a comparison of the groundwater level elevations with the groundwater well operational to identify whether the groundwater pumps need to be lowered or if new groundwater wells are required to provide groundwater supply for the City.
- **Treatment and Distribution System Constraints**: This is an assessment of the probabilities of facility / infrastructural outages *and* the degree to which they could limit the City's ability to treat and deliver adequate supply to its customers. This would include any planned maintenance or capital improvements over the next year that would impact the ability to provide sufficient supply requisite with the water supply demand.

- **Local Regulatory Conditions**: This is an evaluation of any new SSJMUD Area Management Plan policies (e.g., pumping allocations) or any sustainability criteria with the potential to change the amount of water available for pumping. Also included are any new limitations preventing the ability to drill new groundwater supply wells.
- **State Regulatory Conditions**: This is an evaluation of any state-mandated water use restrictions or water quality changes.

Annually, these evaluation criteria will be assessed by City management and the City's Engineering Support Staff who have detailed knowledge of the City's water system operations, current well conditions, and local GSA activities. Data used to support these assessments may include, but is not limited to, water supply capacity, system pumping capacity, groundwater level measurement trends, and system demand.

2.2.2 Water Supply

The City's groundwater supplies come solely from groundwater sources. The City's groundwater source is the Kern County Subbasin, which lies within the Lake Tulare Hydrologic Region. Since this hydrologic region is not adjudicated, and there are no GSA-mandated pumping limitations, the groundwater supply is adequate to meet projected demands under all hydrologic conditions.

The City's three active groundwater wells are perforated deep enough to facilitate groundwater pumping under all proposed hydrologic conditions through 2040.

Identifiable potential constraints are from operational limitations and potential regulatory actions identified in the evaluation criteria above.

2.2.3 Current Year Unconstrained Customer Demand

The WSCP and Annual Assessment will define unconstrained demand as expected water use prior to any projected shortage response actions that may be taken under this WSCP.

In Section 4 of the City's 2020 UWMP, the City's water demand through the year 2040 is projected. The methodology used for unconstrained customer demand will be the same as the methodology for demand projections in Section 4 of the 2020 UWMP which included anticipated population growth, water usage changes, demographic changes, and increases in water use efficiency.

In a single-dry year, the water demand usually increases due to typical increases in temperature and decreases in rainfall which effects outdoor watering habits. The water service reliability assessment and the DRA presented in Section 7 of the 2020 UWMP accounts for changes in water demand according to different drought lengths. However, even with these increases in demand due to a single-dry year or a five-year drought, the available groundwater supply is expected to be sufficient to meet these demands. Water demands in a 5-year consecutive drought are

calculated as a 5 percent increase in water demand above a normal year for each year of the drought.

2.2.4 Current Year Available Supply

The City will evaluate the anticipated supplies for the current year with the assumption that the following year will be dry by using the Evaluation Criteria listed above in Section 2.2.1. Notwithstanding any changes in supply availability per the Evaluation Criteria, the assumed subsequent dry year is not expected to have an impact on the City's ability to pump water from the basin in the current year. Additionally, the planned water demand for the current year will be the same as the unconstrained water demand.

2.2.5 Infrastructure Considerations

The Annual Assessment will include consideration of any infrastructure issues that may impact water supply reliability. This includes repairs, construction, and any new projects that may increase the system capacity. An update on the operational status of all equipment involved for the water supply system, any work required, and new projects should be described. If there is any construction work that predicates the necessity to shut off a groundwater well, or impact the water supply in any manner, a Supply-Demand analysis should be done to ensure that the City can adequately provide water to its customers.

2.2.6 Other Factors

As identified in the Evaluation Criteria above, state or local regulatory action could potentially limit the availability of groundwater supplies. Therefore, the City will evaluate and the development of new regulatory constraints on or before June 1st of each year and assess the potential impacts on water supply availability. If there are constraints on the groundwater availability, the City will develop a plan to address these constraints and implement the appropriate water shortage state of action as per Section 4.1 of the WSCP.

3 Six Standard Water Shortage Stages

In order to anticipate any water supply issues, the City of McFarland adopted water conservation measures in its City Code of Ordinances to conserve water resources, to reduce outdoor water use, and to mitigate unnecessary consumption of available water supplies to the City. The adopted water shortage measures consist of five stages; where the fifth and last stage leaves further needed water conservation measures up to the discretion of the Director of Public Works for the preservation of public health, safety, and welfare.

Water Code Section 10632(a)(3) states, in subparagraph (B), that:

> (B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.

Therefore, Chapter 12.10 of the McFarland, CA Code of Ordinances will be utilized. To reconcile the slight differences between the Code of Ordinances and the WSCP levels, consult Figure 3-1 below. The water shortage measures for the WSCP, shown in Table 3-1, are intended to address any water shortage caused by any circumstance or condition, which includes the catastrophic interruption of water supplies.

Figure 3-1 - Code of Ordinances and WSCP Level Comparison

McFarland Code of Ordinances Stage	Supply Condition / Shortage	2020 WSCP Level	Shortage Level
1 - Voluntary	Normal to Lightly Restricted	1	≤ 10%
2 - Water Alert	Slightly Restricted (12%)	2	10 - 20%
3 - Moderately Restricted	Moderately Restricted (20%)	3	20 - 30%
4 - Severaly Restricted	Severely Restricted (35%)	4	30 - 40%
5 - Extremely Restricted	Extremely Restricted (>50%)	5	40 - 50%
		6	≥ 50%

Table 3-1 - Water Shortage Contingency Plan Levels

Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	**Percent Shortage Range**	**Shortage Response Actions** *(Narrative description)*
1	Up to 10%	Demand Reduction (see Table 4-1)
2	Up to 20%	Demand Reduction (see Table 4-1)
3	Up to 30%	Demand Reduction (see Table 4-1)
4	Up to 40%	Demand Reduction (see Table 4-1)
5	Up to 50%	Demand Reduction (see Table 4-1)
6	>50%	Demand Reduction (see Table 4-1)
NOTES:		

Detailed Shortage Response Actions are discussed in Section 4.

4 Shortage Response Actions

This section describes the response actions the City will take to manage any shortages associated with the six stages listed in Section 4. As previously discussed, the existing groundwater supply is expected to be able to serve 100 percent of future demands under all climate estimated through 2040. However, to comply with state or local regulatory mandates, and to respond to catastrophic incidents, the City may experience a water shortage and must be prepared to identify and execute the actions necessary to preserve the supply of water for its customers.

4.1 Demand Reduction

The demand reduction actions required to address the shortages associated with each of the six water shortage stages are based on the City's past experience with previous drought-related shortages.

For each drought response action, the City has estimated the percent water savings for each implemented action. These are based on evaluations prepared by Dee Jaspar & Associates, Inc. (DJA) based on the water supply and demand data and existing data. Where data or studies are not available, the best estimates were generated based on the City's and DJA's experience.

One difference to note is the difference between the City's Code of Ordinances Chapter 12.10 and the WSCP required stages. As demonstrated in Figure 3-1, the first four stages are virtually the same. Stage five, for the City, is a combination of the WSCP's Stage 5 and 6. Stage 6 of the WSCP will be reserved for whatever actions are necessary, including the banning of all outdoor water usage, to preserve the City's water supply for its customers vital needs. Further details are shown in the Table below:

Table 4-1 - Demand Reduction Actions (Stage #1)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #1)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
1	Prohibition on Waste of Water	2%	Prohibition on the Uses of water which allows substantial and unreasonable	No

			amounts of water to run into a gutter, ditch, or drain.	
1	Prohibition on Waste of Water	3%	The excessive use, loss, or escape of water through breaks, leaks, or malfunctions in the water user's plumbing or distribution facilities for any period of time after such escape of water should reasonably have been discovered and corrected. It shall be presumed that a period of forty-eight hours after discovery is a reasonable time within which to correct such leak or break.	No
1	Prohibition on Waste of Water	3%	The washing of vehicles, building exteriors, sidewalks, driveways, parking areas, tennis courts, patios or other paved areas without the use of a positive shut-off nozzle on the hose.	No
1	Estimated water Savings (%)	8%		
NOTES:				

Table 4-2 - Demand Reduction Actions (Stage #2)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #2)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** ***Drop Down List***
Add additional rows as needed				
2	Landscape - Limit landscape irrigation to specific days	6%	Irrigation utilizing individual sprinklers or sprinkler systems of lawns, gardens, landscaped areas, trees, shrubs, or other plans is permitted on the "odd/even" protocol between	No

			the ours of 8 p.m. and five a.m. on designated days.	
2	Landscape - Restrict or prohibit runoff from landscape irrigation	2%	Water shall not spray or flow to any impermeable private or public surface, including but not limited to, walkways, driveways, sidewalks, alleys, streets, or storm drains.	No
2	Other	1%	The washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment is permitted only on designated irrigation days based on the "odd/even" protocol, between the hours of 8 a.m. and 6 p.m.. Such washing, when allowed, shall be done with a hand-held bucket, or a hand-held hose equipped with a positive shut-off nozzle for quick rinses.	No
2	Other water feature or swimming pool restriction	0.5%	The emptying and refilling of water to swimming pools / spas is permitted only on designated irrigation days between the hours of 7 p.m. and 10 a.m.	No
2	Water Features - Restrict water use for decorative water features, such as fountains	0.5%	The operation of any ornamental fountain or other structure making similar use of water is prohibited unless the fountain uses a recycling system.	No
2	Other	1%	The washing of sidewalks, driveways, parking areas, courts, patios, or other paved areas is absolutely prohibited, unless it is necessary for the health and safety, and welfare of the public.	No

2	CII - Restaurants may only serve water upon request	0-1%	All new or substantially re-modeled eating and drinking establishments of any kind shall only provide drinking water to any person upon receipt of an express request. They shall also install water conserving pre-rinse nozzles.	No
2	CII - Commercial kitchens required to use pre-rinse spray valves	0-1%	All new or substantially re-modeled eating and drinking establishments of any kind shall install water conserving pre-rinse nozzles.	No
2	CII - Lodging establishment must offer opt out of linen service	0-1%	All new or substantially re-modeled hotels, motels, and bed and breakfast establishments shall provide customers the option of choosing not to have towels laundered daily. They must also have the best avaiable technology low flow toilets.	No
2	CII - Other CII restriction or prohibition	0-1%	All new or substantially re-modeled new carwash system shall have a water recirculation system.	No
2	Other - Require automatic shut of hoses	2%	No person shall allow water to flow freely from a hose that is not equipped with a positive action quick release shutoff valve or nozzle.	No
2	Estimated water Savings (%)	12%		
NOTES:				

Table 4-3 - Demand Reduction Actions (Stage #3)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #3)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** ***Drop Down List***
Add additional rows as needed				
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	2%	Washing of vehicles is prohibited except at commercial car washes or by mobile high pressure / low volume commercial services.	Yes
3	Landscape - Limit landscape irrigation to specific days	8%	Landscape watering with potable water shall be limited to one time per week for not more than fifteen minutes per watering zone from 6 p.m. Wednesday and 9 a.m. the following Thursday.	Yes
3			This subsection shall not apply to any drop irrigation system, irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.	
3	Estimated water Savings (%)	10%		
NOTES:				

Table 4-4 - Demand Reduction Actions (Stage #4)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #4)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** ***Drop Down List***
Add additional rows as needed				
4	Other	1%	Home reverse osmosis treatment units and water softeners shall be disconnected or turned off.	Yes
4	Landscape - Other landscape restriction or prohibition	1%	Watering of nonpublic playing fields with potable water is prohibited.	Yes
4	Landscape - Prohibit certain types of landscape irrigation	8%	Landscape watering with potable water shall be limited to one time per week from 6 p.m. on Wednesday and 9 a.m. the following Thursday by only drop irrigation, hand-held hoses, or if reclaimed water is utilized as permitted by law.	Yes
4			This subsection shall not apply to any drip irrigation systems, irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.	
4	Estimated water Savings (%)	10%		

Table 4-5 - Demand Reduction Actions (Stage #5)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #5)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
5	Other water feature or swimming pool restriction	1%	Filling of residential swimming pools or spas with potable water is prohibited.	Yes
5	Landscape - Prohibit certain types of landscape irrigation	9%	Landscape irrigation with potable water is prohibited except with a watering can using water captured from indoor use.	Yes
			This subsection shall not apply to any drop ittigation system, irrigation system maintenance, leak repair or new planting of low water usage plants or if reclaimed water is utilized as permitted by law.	
5	Estimated water Savings (%)	10%		
NOTES:				

Table 4-6 - Demand Reduction Actions (Stage #6)

Submittal Table 8-2: Demand Reduction Actions (Shortage Stage #6)				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** ***Drop Down List***
Add additional rows as needed				
6	Other	as needed	Any additional water conservation measures adopted by the director of public works or his or her designee deemed necessary for the preservation of public health, safety, and welfare.	Yes
NOTES:				

4.2 Supply Augmentation

The City has not identified any supply augmentation actions that have already been integrated into *normal* water management planning for shortage conditions. As noted in Section 2 of this report, the City may alternatively consider lowering well pumps or drilling new wells if necessary due to declining water levels. However, the City would consider these actions to be operational changes, described in Section 4.3, rather than accessing a new supply source.

Table 4-7 - Supply Augmentation

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
Add additional rows as needed			
NOTES:			

4.3 Operational Changes

As discussed above in Section 2, the primary operational change the City will consider would come from the SDA, when it is necessary for the City to drill new groundwater wells or lower their current groundwater pumps in order to maintain the needed water supply. The City may also evaluate the potential benefits of altering other maintenance cycles and expediting infrastructure repairs to improve system efficiency, to the extent feasible.

4.4 Additional Mandatory Restrictions

Implementation of mandatory restrictions may be an effective although unpopular tool for reducing customer water usage because it is associated with enforcement actions and penalties. The water shortage response actions listed in Section 4.1 include a variety of mandatory customer water use restrictions necessary to achieve the targeted demand reductions for the different shortage stages. The type of restrictions, as well as the manner and degree of enforcement vary by stage and are further discussed in Section 4.1 of this WSCP.

4.5 Emergency Response Plan

The City of McFarland enacted its Emergency Response Plan (ERP) in compliance with Section 1433(b) of the Safe Drinking Water Act (SDWA) as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Public Law 107-188, Title IV – Drinking Water Security and Safety), California Government Code Section 8607.2 – Public Water System Plans, California Health and Safety Code, Sections 116460, 116555, and 116750, and California Waterworks Standards, Section 64560.

This ERP has been designed to coordinate the overall response for any disaster. The purpose of the ERP is to provide the City with a standardized response and recovery protocol to prevent, minimize, and mitigate injury and damage resulting from emergencies or disasters of man-caused, natural, or dependency/proximity origin. The ERP also describes how the City will respond to potential threats or actual scenarios identified in the vulnerability assessment, as well as additional emergency response situations. The ERP for the City of McFarland, updated June 6, 2020, will be appended to this document.

With respect to water shortage issues, Section 3, "Water System Information" of the City's ERP should be consulted. In the City's ERP, different Action Plans (APs) are established for natural disasters, contamination to the water system, any structural damage, and water supply interruptions. For any water supply interruption, Action Plan 9 (AP-9) has been enacted to address the water shortage. However, it's worth noting that catastrophic water supply interruptions will generally be identified by other events, such as physical equipment damage, severe weather or others, which are likely to have a specific direct-action plan. Incremental interruptions due to longer-term events such as drought or acute loss

of one source, will lead to a prescribed series of contingency measures, as outlined in AP-9.

4.6 Seismic Risk Assessment and Mitigation Plan

The Water Code Section 10632.5.(a) states that,

> "... the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities."

Part (c) also states,

> "An urban water supplier may comply with this section by submitting, pursuant to section 10644, a copy of the most recent adopted local hazard mitigation plan or multi-hazard mitigation plan under the Federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multi-hazard mitigation plan addresses seismic risk."

The City of McFarland updated its Local Hazard Mitigation Plan (LHMP) in 2016, which includes an assessment of seismic risk in the area. The LHMP addresses the probabilities of earthquakes in the area and the potential damage that may be caused with respect to varying earthquake magnitudes. Furthermore, the ERP has an action plan, AP 8D – Natural Event (Earthquake), which addresses actions to take in light of an earthquake.

4.7 Shortage Response Action Effectiveness

In Section 4.1, Table 4-1 through Table 4-6 show the effectiveness of the specific demand-reduction actions and implementation levels necessary for the City to achieve the targeted savings for each water shortage stage. The bottom row of each table indicates the total annual cumulative savings over against the original projected demand expected to be reached at each water shortage stage level.

5 Communication Protocols

According to Water Code Section 10632 (a)(5) state:

> Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:
>
> (A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1
> (B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1
> (C) Any other relevant communications

Timely and effective communication is a key element of water shortage contingency planning implementation. The City, in the event of a water shortage projected from a SDA, intends to escalate communication to customers and stakeholders, as needed, 1) throughout any water shortage situation to help ensure they are aware of current conditions, 2) any water use restrictions that are in effect, and the many ways the City can help customers reduce their water use. The City's outreach efforts are multi-faceted, including: bill messages, bill inserts, direct mail, email, letters, social media postings, and print and radio advertisements.

In the event of a catastrophic and sudden water shortage loss, the City's Emergency Response Plan (ERP) should be consulted. The ERP provides instructions for setting up an Emergency Operations Center and for establishing communication guidelines to inform the public and all interested parties of the situation at hand and the mitigation required to de-escalate the issue.

Chapter 6 of the City's ERP establishes Communication Procedures for an emergency response. The City utilizes the Incident Command System (ICS) for its command structure during water emergencies. The ICS establishes a chain of command, and in Section 6.3, notification procedures are documented. These notification procedures include instructions for contacting emergency services, critical customers, district and regional regulatory authorities, the media, and the public.

6 Compliance and Enforcement

Water Code Section 10632 (a)(6) states:

> For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.

This section should describe how the City will ensure compliance with and enforce provisions within the WSCP. The City of McFarland's municipal code currently does not describe any methods to ensure compliance of any provisions within its water shortage restrictions in Chapter 12.10 – Water Conversation Measures of its Code of Ordinances.

The following describes the enforcement actions to ensure compliance with the requisite water shortage stages in order to be compliant with the Water Code Section 10632. Legal authority for enforcement and financial consequences will be further discussed in Sections 7 and 8 respectively in this WSCP.

6.1 Water Use Restrictions

6.1.1 First Violation

The City shall provide the customer with a written notice of violation. In addition, the City is authorized to take the following actions:

1. If the customer currently receives service through a metered connection, a real-time water measurement device may be installed on the customer's service line and the customer will be provided the ability to access information from the device. The cost of the device, including installation and ongoing operating costs, may be billed to the customer, and nonpayment may result in discontinuance of service.
2. If the customer does not currently receive service through a metered connection, a water meter may be installed on the customer's service line, and the customer may be charged for water use pursuant to the City's metered service tariffs and rules, and a real-time water measurement device on the customer's service line may be installed and the customer will be provided the ability to access information from the device. The cost of the device, including installation and ongoing operating costs, may be billed to the customer, and nonpayment may result in discontinuance of service.

6.1.2 Second Violation

If the City verifies that the customer has used potable water for non-essential, wasteful uses (according to the water shortage stages enumerated in Section 4.1) after having been notified of the first violation, the City shall provide the customer

with a second written notice of violation. In addition to the actions prescribed under the first violation above, the City is authorized to take the following actions:

1. Apply the following waste of water penalties, which are in addition to any other charges authorized by this Schedule:

    a. If Stage 1 is in effect: $25
    b. If Stage 2 is in effect: $50
    c. If Stage 3 is in effect: $75
    d. If Stage 4 is in effect: $100
    e. If Stage 5 is in effect: $150
    f. If Stage 6 is in effect: $200

2. At its sole discretion, the City may waive the waste of water penalty if the customer participates in a water use evaluation provided by the City / provides documentation to the City proving that a drip irrigation system, micro-spray irrigation system, high-efficiency sprinkler system, or properly programmed smart irrigation controller has been installed, after a notice of violation was delivered, and is in use at the customer's service address.

6.1.3 Third Violation

If the City verifies that the customer has used potable water for nonessential, wasteful uses after having been notified of the second violation, the City is authorized, in addition to the actions prescribed under the first and second violation above, to take the following actions:

1. Apply the following waste of water penalties, which are in addition to any other charges authorized by this Schedule or other City of McFarland tariffs:

    a. If Stage 1 is in effect: $50
    b. If Stage 2 is in effect: $100
    c. If Stage 3 is in effect: $150
    d. If Stage 4 is in effect: $200
    e. If Stage 5 is in effect: $300
    f. If Stage 6 is in effect: $400

2. At its sole discretion, the City may waive the waste of water surcharge if the customer participates in a water use evaluation provided by the City / provides documentation to the City proving that a drip irrigation system, micro-spray irrigation system, high-efficiency sprinkler system, or properly programmed smart irrigation controller has been installed, after a notice of violation was delivered, and is in use at the customer's service address.

6.1.4 Fourth Violation

If the City verifies that the customer has used potable water for non-essential, wasteful uses after having been notified of the third violation, the City shall provide the customer with a fourth written notice of violation. In addition to actions set forth in the previous violations prescribed above, the City is authorized to install a flow-restricting device on the customer's service line.

6.1.5 Egregious Violation

Notwithstanding the foregoing framework for penalties, customers whom the City has verified are egregiously using potable water for non-essential, wasteful uses are subject to having a flow-restricting device installed on their service line. After providing the customer with one notice of egregious violation, either by direct mail or door hanger, which documents the egregious use of potable water for non-essential, wasteful uses and explains that failure to correct the violation may result in the installation of a flow-restricting device on the customer's service line which may be used to shut off the customer's water supply.

6.2 Drought Surcharges

Water drought-based surcharges are currently not included in the water shortage response actions outline in Section 4.1 above. However, the City reserves the right to implement drought-based water rate surcharges as needed to address water shortages.

7 Legal Authorities

The City of McFarland is a public municipality with the authority to adopt resolutions or ordinances. Within those bounds, the City has the authority to implement this WSCP, declare water shortages, and implement shortage response actions including, but not limited to: new ordinances, resolutions, and contract provisions.

This policy shall be known as the City of McFarland Water Shortage Contingency Plan. Article 10, Section 2 of the California Constitution declares that waters of the state are to be put to beneficial use, and that waste, unreasonable use, or unreasonable method of use of water be prevented, and that water be conserved for public welfare.

The City may experience water shortages due to drought conditions, regulatory restriction enacted upon imported supplies, catastrophic emergencies, and other factors. Conservation of current water supplies and minimization of the effects of water supply shortages that are the result of drought are essential to the public health, safety, and welfare of the customer. Regulation of the time of certain water use, manner of certain water use, schedule of water rates, method of application of water for certain uses, and installation and use of water-saving devices provide an effective means of conserving water.

In addition, California Water Code Section 375 et seq. authorizes a water supplier to adopt and enforce a comprehensive water conservation program. Adoption and enforcement of a comprehensive water conservation program will allow the City to delay or avoid implementing measures such as water rationing or more restrictive water use regulations pursuant to a declared water shortage emergency as authorized by California Water Code Sections 350 et seq.

The City has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of its programs to provide a reliable supply of water to meet the needs of the public within its service territory. The City's Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This WSCP is consistent with the Urban Water Management Plan adopted by the City.

7.1 Declaring a Water Shortage Emergency

The City will follow the protocols outlined in this WSCP and the City's Emergency Response Plan should it become necessary to declare a water shortage emergency. The process will follow the pertinent sections of the California Water Code and be noticed for a public hearing, typically at a City Council meeting.

8 Financial Consequences of WSCP Activation

The various revenue sources available to the City during droughts include, but are not limited to water sales, system connection fees, interest income, special assessments, reserves, and other nonoperating revenues such as grant funding when available. In addition, there may be special outside funding sources made available to water agencies during a water emergency (e.g., Levels 4 through 6). The following presents a discussion on potential revenue reductions during droughts and how they will be addressed.

8.1 Potential Revenue Reductions and Expense Increases

Potential revenue reductions include lost water sales to any of the customer categories served by the City including residential, commercial, institutional, and industrial water users. All water users are billed volumetrically, so a drought or water shortage could cause a significant reduction in revenue for the City from this source.

There are potential *increases* in expenses as well. One such increase could be a result of increased groundwater pumping due to the drought / water shortage. The groundwater level may decline, which would lead to increased lift requirements for the pumps and a higher pumping cost per gallon. The decline in groundwater levels could also predicate the need to lower the groundwater pumps, which would be a significant expense for the City.

8.1.1 Revenue Reductions

In order to estimate the City's potential reduction in revenue with respect to any water shortage, the City's projected water demands through the year 2040 were considered. From the City's projected water demands, an estimated number of service connections for different sectors (residential, commercial, institutional) were utilized to calculate an average water usage per connection per sector per year. Since water shortage stages are implemented by a percentage-based strategy, the average water usage amount has been reduced by the water shortage stage reduction percentage. Since billing takes place monthly, per connection, the average water use per connection was utilized to calculate an average bill amount. This table below used the City's water bill fee schedule:

Table 8-1 - City of McFarland Water Usage Fee Schedule

Metered Water Usage Rate:	
First 1000 cubic feet	$13.53
1,001 cu. Ft. to 1,500 cu. Ft	+$1.11 per 100 cu. Ft.
1,501 cu. Ft. to 2,000 cu. Ft.	+$1.22 per 100 cu. Ft.
2,001 cu. Ft. and above	+$1.38 per 100 cu. Ft.

With an average bill amount for different sectors, it is possible to calculate the potential water bill amounts for different water shortage levels, in order to see the potential revenue reductions. For example, below is a table for the year 2022:

Table 8-2 - Estimated Water Bill Amount with Water Shortage Reductions - 2022

Estimated Total Water Bill Amount - 2022			
	Bill Amount	Revenue Reduction	% Reduction
Normal	$ 73,021.76	$ -	0%
10%	$ 68,324.62	$ (4,697.14)	-6%
20%	$ 60,010.10	$ (13,011.66)	-18%
30%	$ 55,133.00	$ (17,888.76)	-24%
40%	$ 50,435.86	$ (22,585.90)	-31%
50%	$ 49,356.10	$ (23,665.66)	-32%

It can be seen in Table 8-2 that if there was to be a catastrophic water shortage of 50 percent, then the City's revenue would decrease by an estimated $23,665.66, or by 32 percent. This information should help the City in making sure that minimally all water supply-related fixed costs may still be covered even under the case of a catastrophic water loss. Further tables are shown in Appendix B.

8.2 Mitigation Actions

Currently, the City has sufficient funds in their operating reserves to supplement deficiencies in revenue caused from a water shortage. Additionally, the City has substantial groundwater that can meet projected water demand through 2040.

8.3 Cost Compliance

The City's Municipal Code currently does not explicitly state any fines to be assessed upon violation of any of the water shortage restrictions. A recommended fee schedule is in Section 6.1 of this WSCP.

9 Monitoring and Reporting

The City has and will continue to comply with State reporting requirements. The City meters all water deliveries to its customers, which assists in assuring customer compliance. Additionally, the City maintains a protocol for receiving and addressing complaints of non-compliance and misuse.

9.1 Production Related

Under normal water supply conditions, potable water production figures are recorded daily.

9.2 Disaster Shortage Related

During emergency shortages, production figures are reported to the Emergency Operations Center Incident Commander and to Water Utility Emergency Response Manager (WUERM) on a daily basis. Daily reports will also be provided to the City Council.

10 WSCP Refinement Procedures

As this is the first WSCP for the City of McFarland, this will be utilized as an additional resource to the Emergency Response Plan in the case of a water shortage emergency. This WSCP will also be utilized in the case of a projected water shortage loss according to its annual Supply and Demand Assessment. This WSCP will be re-evaluated at least every five years and at the end of any major drought period to assess its performance and improve the report based on lessons learned. The WSCP may also be updated in the middle of a drought year if needed.

11 *Special* Water Feature Distinction

For the purposes of developing this WSCP, the City shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.

The City currently does not have any special water features that would fall under this category. If any water features come into use, or are constructed, then an analysis of the water feature and its water use impacts will be discussed in the updated WSCP.

12 Plan Adoption, Submittal, and Availability

The deadline for public comments on the WSCP is December 7, 2021. The final WSCP will be formally adopted by the City on December 9, 2021. The City UWMP includes a copy of the signed Resolution of Plan Adoption and contains the following:

- Letters sent to and received from various agencies regarding the UWMP and WSCP
- Correspondence between the City and participating agencies.

This WSCP and UWMP were submitted to DWR within 30 days of adoption. The submittal was done electronically through the Water Use Efficiency Data Portal, an online submittal tool. The adopted WSCP was also sent to the California State Library and to the cities and counties listed in Table 10-1 of the City UWMP.

After submission to the DWR, versions were made available for review by visiting the City's website.

Appendix A – Emergency Response Plan

Appendix B – Water Shortage Revenue Reduction Tables

Estimated Total Water Bill Amount						
Year	Normal	Water Shortage Reduction Amount				
		10%	20%	30%	40%	50%
2020	$66,740.54	$62,321.38	$55,123.62	$51,010.10	$43,640.79	$42,611.52
2021	$71,870.12	$63,781.75	$59,376.50	$51,620.22	$47,039.27	$45,985.05
2022	$73,021.76	$68,324.62	$60,010.10	$55,133.00	$50,435.86	$49,356.10
2023	$77,862.72	$68,989.35	$63,999.70	$58,825.73	$53,836.08	$52,730.16
2024	$78,559.99	$73,277.20	$67,805.62	$58,372.76	$57,240.03	$56,107.31
2025	$83,147.55	$72,961.18	$67,384.59	$61,808.00	$60,647.83	$59,487.65

Revenue Reduction Amount						
Year	2020	2021	2022	2023	2024	2025
Normal	-	-	-	-	-	-
10%	-$4,419.16	-$8,088.37	-$4,697.14	-$8,873.37	-$5,282.79	-$10,186.36
20%	-$11,616.92	-$12,493.62	-$13,011.66	-$13,863.02	-$10,754.37	-$15,762.95
30%	-$15,730.44	-$20,249.90	-$17,888.76	-$19,036.99	-$20,187.23	-$21,339.54
40%	-$23,099.75	-$24,830.85	-$22,585.90	-$24,026.64	-$21,319.96	-$22,499.72
50%	-$24,129.02	-$25,885.07	-$23,665.66	-$25,132.56	-$22,452.68	-$23,659.90

Estimated Total Water Bill Amount						
Year	Normal	Water Shortage Reduction Amount				
		10%	20%	30%	40%	50%
2020	$66,740.54	$62,321.38	$55,123.62	$51,010.10	$43,640.79	$42,611.52
2025	$83,147.55	$72,961.18	$67,384.59	$61,808.00	$60,647.83	$59,487.65
2030	$94,537.40	$87,477.10	$80,416.80	$79,109.07	$77,801.34	$76,493.61
2035	$108,050.01	$99,487.23	$98,013.18	$96,539.14	$95,065.09	$93,591.05
2040	$118,686.94	$117,025.43	$115,363.91	$113,702.40	$112,040.88	$110,379.37

Revenue Reduction Amount					
Year	2020	2025	2030	2035	2040
Normal	-	-	-	-	-
10%	-$4,419.16	-$10,186.36	-$7,060.30	-$8,562.78	-$1,661.52
20%	-$11,616.92	-$15,762.95	-$14,120.61	-$10,036.83	-$3,323.03
30%	-$15,730.44	-$21,339.54	-$15,428.34	-$11,510.87	-$4,984.55
40%	-$23,099.75	-$22,499.72	-$16,736.06	-$12,984.92	-$6,646.06
50%	-$24,129.02	-$23,659.90	-$18,043.79	-$14,458.97	-$8,307.58

Appendix E – Notice of Public Hearing

PUBLIC NOTICE

NOTICE IS HEREBY GIVEN that the City of McFarland is in the process of adopting its first **Urban Water Management Plan** and **Water Shortage Contingency Plan** and is seeking public input. A copy of the proposed Urban Water Management Plan and Water Shortage Contingency Plan is available online at: https://www.mcfarlandcity.org/DocumentCenter or at City Hall, 401 W. Kern Ave.

NOTICE IS FURTHER GIVEN

Southern San Joaquin Municipal Utility District
11281 Garzoli Ave
Delano, CA 93215

SUBJECT: NOTICE OF 2020 URBAN WATER MANAGEMENT PLAN ADOPTION

Clerk of the Board of Supervisors
County of Kern
1115 Truxtun Avenue
Bakersfield, CA 93301-4639

SUBJECT: NOTICE OF 2020 URBAN WATER MANAGEMENT PLAN ADOPTION

Planning Manager
Kern Groundwater Authority
1800 30th Street, Suite 280
Bakersfield, CA 93301

SUBJECT: NOTICE OF 2020 URBAN WATER MANAGEMENT PLAN ADOPTION

Appendix F – Adopted UWMP Resolution

Appendix G – McFarland General Plan 2040 (May 2021 Update)


City of McFarland
General Plan Update
Draft 2040 General Plan
May 2021
CAL POLY
CALIFORNIA
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McFarland
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Acknowledgements

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Updated May 2021

This report was initially produced for the City of McFarland, California
as part of the McFarland General Plan Update project
by the 2019-2020 Community and Regional Planning Studio class
of the Master of City & Regional Planning Program at California Polytechnic State University
in San Luis Obispo, California.

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Executive Summary

Introduction

This document is a comprehensive update of the General Plan for the City of McFarland, California. State law requires cities and counties to prepare and adopt a General Plan to serve as a guiding document for land use and development decisions. The General Plan is developed with public input as well as demographic and planning research. It is typically prepared looking over a 15- to 20-year timeline, and must be periodically updated according to State law, with the Housing Element requiring more frequent updates.

The General Plan is separated into thematic elements. All elements must be consistent with each other. Seven elements are required for all General Plans in California, with two further elements required for communities meeting certain criteria that exist in McFarland. Optional elements may also be included and they carry the same legal force and status as the required elements. This General Plan includes five optional elements. The fourteen elements include:

- **Required:** Land Use, Circulation, Housing, Safety, Conservation, Open Space, and Noise
- **Required in San Joaquin Valley Air Pollution Control District:** Air Quality
- **Required in Disadvantaged Communities:** Environmental Justice
- **Optional:** Economic Development, Health, Community Design, Public Facilities, and Sustainable Agriculture

Planning Process

This General Plan was produced with significant input from residents and stakeholders in the City of McFarland, including many members of the public, the Planning Commission, and City staff. The planning team consisted of second year graduate students pursuing master's degrees in City & Regional Planning under the guidance of Dr. Cornelius Nuworsoo, all from California Polytechnic State University (Cal Poly) in San Luis Obispo, California. The planning team worked closely with the City of McFarland on this update of the City's General Plan, which had last been updated in 1991.

In the fall of 2019, the planning team gathered input, including likes, dislikes, and wishes from the citizens of McFarland and City leadership and staff through two public meetings and an online survey as well as a complete land use inventory to generate a Background Report that describes the existing conditions in the City. The Background Report provides supplemental information for the General Plan and was used to inform goal development and land use and circulation decisions. The Background Report provides an overview of the existing conditions taking into consideration existing policies, plans, regulations, infrastructure, resources, and services within the City and the surrounding area. The Background Report further guided the formulation of development alternatives in this subsequent General Plan document.

Using additional community input received in a third community meeting in February 2020, the planning team developed the Preferred Growth Alternative in February and March 2020. Three different methods were utilized to gather information to inform the planning process on existing conditions and to identify emerging directions, which in turn guided the development of goals, objectives, policies, and programs and the Preferred Growth Alternative of the General Plan. These methods include:

- Primary data collection in the form of four public meetings and an online survey on preferences for future development in McFarland.
- Field work in the form of a land use inventory, which provided an up-to-date map of the land uses, intensities, and conditions on all parcels within the City boundaries in October 2019.
- Secondary research to identify existing plans, policies, and contextual information related to each element.

Demographics

McFarland's 2015 population was 13,020. The median age in the City in 2015 was 26 years old. The median household income of $35,069 was 69% of Kern County's median and 52% of California's median. 89% of the population of McFarland identify as white, and 96% identify as Hispanic or Latino. 36% of residents fall below the poverty level. The 2017 unemployment rate in McFarland was 14.2%.

2040 Population and Housing Projections

McFarland's population is projected to grow from 13,020 in 2015 to 23,690 by 2040 under baseline conditions. However, the Preferred Growth attempts to accommodate the most aggressive plausible growth to 33,220 people. The age distribution is projected to change, as birth rates decline, and the average age of the population increases.

McFarland's 2017 housing stock consisted of 3,080 housing units, 3% of which were vacant. To accommodate future population growth, the City would need 4,500 more housing units under baseline conditions as population increases and as more young people start their own households. Nearly half of the new housing units should be affordable to specific income groups based on the percentage of households overburdened by housing costs in 2017. The Preferred Growth accommodates a target of 10,630 total housing units instead of a baseline total of 7,580. The increase is due to additional housing need to be generated by an aggressive jobs target of 17,195 jobs by 2040.

Plan Elements and Existing Conditions

Land Use

The Land Use Element is required and provides a guide for future development and growth for planners, developers, decision-makers, and the public. In doing so, the Land Use Element designates the location, distribution, and intensity of housing, commercial, industrial, open space, and educational uses, public facilities and buildings, recreational facilities, and waste

management facilities. In correlating all land use issues into one set of clear development policies, the Land Use Element is the most representative of the General Plan and establishes the framework for all other elements.

The 2019 land use inventory of McFarland identified 6% of the acreage within the City (76.98 acres) as vacant, offering potential for a variety of development opportunities. The distribution of uses on the remaining acreage in the City was as follows:

- 36% residential
- 29% institutional
- 24% agriculture
- 3% parks
- 2% commercial
- 1% industrial

Community feedback collected during the drafting stages of the General Plan indicated a desire for a well-balanced and diverse mix of residential, open space, commercial, and industrial uses while maintaining McFarland's small-town feel. The Land Use Element sets goals and objectives that reflect these values.

Circulation

The Circulation Element is required and focuses on the movement of people and goods. To fulfill this, the element focuses on transportation and is related to the Land Use, Housing, Open Space, Noise, and Safety Elements. McFarland contains numerous commercial corridors with automobile traffic and is bisected by Highway 99, where travelers pass through McFarland's city limits destined for other locales in the State. The downtown is largely walkable with wide sidewalks, but in the residential neighborhoods there are some parcels and blocks with limited sidewalk facilities. Bicycle facilities are limited to two bicycle lanes located on the southern boundary of the City. Residents primarily use personal automobiles to make trips outside of McFarland for work and shopping purposes. Access to regional transportation terminals, including airports and train stations, requires travel to neighboring cities including Wasco, Delano, and Bakersfield. During community meetings, residents expressed the desire for expanded public transportation options, raised crosswalks, and bicycle facilities to connect to various City parks.

The Circulation Element addresses SB 743 requirements with proposals to further help reduce vehicle miles traveled and related impacts of driving. The Goals of Circulation relate to safety, efficiency, sustainability, and equity in transportation options and network to maintain a small-town feel while preparing for the future.

Housing

The Housing Element is mandatory according to State law. This Element analyzes the housing stock and conditions based on information gathered from the 2019 land use inventory and the

U.S. Census. The housing stock in the City of McFarland consisted of 3,080 total housing units in 2017. 86% of these units were single-family homes. The vacancy rate was 2%. Like the rest of the State of California, the City of McFarland has continued to grapple with high housing costs. In 2016, 48% of residents were burdened with overpayment for housing. Renters are disproportionally more financially burdened with housing costs than owners. This burden impacts future housing development within the City.

The Housing Element includes goals, objectives, policies, and programs which address state legislative housing requirements and reflect the housing needs and desires of McFarland residents. Community feedback collected during the planning process showed community interest in maintaining affordability within the City's housing stock, increasing mixed-use residential development downtown, and developing more of a variety of housing options for residents. The goals and objectives within the Housing Element prioritize these factors.

Economic Development

The Economic Development Element is optional. Economic development is the process by which the economic well-being and quality of life of a local community is improved. The Economic Development Element guides the community in expanding, attracting, and retaining businesses to support diverse and vibrant commercial areas.

In 2015, McFarland's median household income was $35,069, which was 70% of Kern County's and 52% of California's median household incomes. McFarland's unemployment rate was 14.2%, much higher than Kern County's 10.7% and California's 7.7%. Jobs in McFarland largely depended on workers from outside the City while McFarland's resident workforce was primarily employed outside the City. McFarland's industrial makeup is predominantly agriculturally based.

The land use plan uses infill and mixed-use redevelopment to revitalize the downtown area, bringing commercial activity and jobs. The land allocated for highway commercial use along Famoso Road is to capture revenue from pass-through traffic and events at the Famoso Raceway. The large amounts of land dedicated to industrial and commercial use can make McFarland an inviting destination for economic development.

The policies and programs delineated in the Economic Development Element are designed to leverage the land use plan and develop McFarland's economic resources by expanding and diversifying area businesses, expanding the tax base, and providing services to assist jobseekers, entrepreneurs, and regional businesses.

Safety

The Safety Element is required in a General Plan. The Safety Element addresses the protection of life and property from natural and man-made hazards. Under California Government Code 65302(g) the following hazards must be addressed: seismic, geologic, fire, flood, and climate change. The Safety Element for McFarland goes beyond minimum requirements to address hazardous materials, drought, and emergency preparedness.

The greatest risk to McFarland is extreme weather which can lead to flooding issues, particularly in areas within the 100-year flood plain. The Safety Element provides goals, objectives, policies, and programs to help prevent loss of life or damage to property. This is done throughout the element by focusing on emergency preparation and hazard evaluation to establish mitigation measures to reduce impact on property, health, and safety of the community.

The Safety Element requires safe building practices which can greatly reduce the community's vulnerability to natural and man-made hazards. Among other measures, new residential development is to be located outside the 100-year floodplain or must be appropriately mitigated. The Safety Element also specifies emergency preparedness measures to respond to and recover from hazards.

Conservation

The Conservation Element is required and addresses the management and conservation of an area's natural resources while allowing for economic growth. The goal of this element is to minimize negative impacts on natural resources while allowing the City to grow. Additionally, this element addresses federal and state mandates for environmental regulation, soil and mineral resources, biological resources, water resources, air quality, and wildlife. Given the strong agricultural base of McFarland, soil and water conservation are high priorities in the community.

The Conservation Element identifies goals, objectives, policies, and programs to guide the City into the future while minimizing impacts on natural resources. Under the Preferred Growth Alternative, the City is to concentrate future residential and economic growth. Future growth is likely to increase water demand, but also can provide opportunities to improve on water and energy conservation and reduce the per-user cost of necessary infrastructure projects for residents and businesses. The Conservation Element includes policies on energy, water, and habitat that correspond with regional planning goals.

Open Space

The Open Space Element is required to address agricultural lands, parks, and recreational space. McFarland is host to many agricultural fields and Williamson Act parcels with high quality soils both within City limits and in the surrounding area. Since Agriculture is a mainstay of the local economy, a separate optional Sustainable Agriculture Element is added to this General Plan update.

Within City limits, recreational parks include McFarland Park, Ritchey Park, Arturo J. Munoz Park, Blanco Park, and Browning Road Park. Other outdoor recreational spaces include Kaboom Playground, the grass field by the local public library, and Villa Del Caribe Park, which was under development at the time of this report. The distribution of these parks favors the southwestern neighborhoods in McFarland.

The goals, objectives, policies, and programs of the Open Space Element seek to preserve existing open spaces and agriculturally productive land while allowing for responsible conversion of land for physical development. The Preferred Growth Alternative seeks to provide specific control at the planning level to both add needed open space as the community growths while also preventing unwarranted conversion of green fields.

Air Quality

McFarland is located within the San Joaquin Valley Air Basin, which is not in attainment with Federal regulatory standards including the Clean Air Act and National Ambient Air Quality Standards, and State regulations including the California Clean Air Act and the California Ambient Air Quality Standards. As a result, residents in McFarland are disproportionately pollution-burdened and suffer negative health effects. This situation makes the Air Quality Element mandatory for McFarland.

Most air pollution in the San Joaquin Valley stems from locally generated pollutants, primarily from agricultural activities; other contributors include vehicular emissions, construction emissions, and fugitive dust and odors. The San Joaquin Valley is also disproportionately affected by greenhouse gas emissions which contribute to local air pollution and endanger human health. Per Kern County's Greenhouse Gas Inventory, emissions of greenhouse gases in the region are mostly attributed to industry and energy consumption. The goals, objectives, policies, and programs of the Air Quality Element include strategy to keep air pollutants and emissions low to protect the health and safety of residents.

Health

The Health Element is optional in this General Plan update. It promotes a healthy lifestyle by introducing land uses that facilitate active transportation. In addition, this element aims to increase access to adequate health services, expand education about preventative and primary care, and to establish policies that increase access to affordable local, fresh, and healthy foods.

McFarland residents are at a higher risk for asthma, heart disease, obesity, various cancers, teen pregnancy, and sexually transmitted infections when compared to other regions in California. There are two clinics in the City, which compels residents to seek much medical attention outside, mostly in neighboring cities.

The goals, objectives, policies, and programs of the Health Element address the health issues and challenges of the City. To provide a comprehensive attention to health, the Health Element incorporates aspects of such other related elements as Circulation, Open Space and Environmental Justice.

Environmental Justice

The City of McFarland is required by law to have an Environmental Justice Element due to its status as a disadvantaged community. The purpose of the Environmental Justice Element is to identify objectives and policies to reduce compounded health risks including pollution exposure, food insecurity, and insufficient physical activity. The element also requires

jurisdictions to promote public participation in the decision-making process and prioritize the needs of disadvantaged groups.

The California Environmental Protection Agency's standards for environmental justice indicate that the City is impacted by pollution burdens. As early as 1984, a cluster of childhood cancers was identified in McFarland linked to pesticide use.

The goals, objectives, policies, and programs of the Environmental Justice Element focus on making McFarland sustainable, inclusive, and resilient. The policy framework requires that transportation facilitates safe, efficient, pollution-free mobility for all its residents with future expansions to McFarland's bikeway network as described further in the Circulation Element. This is to attain a more multimodal city marked by healthy, affordable, and integrated mobility. Sidewalk improvements would also promote physical activity through active transportation.

Noise

The Noise Element is mandatory in the General Plan. This element identifies noise sources, quantifies noise levels, maps noisy areas, and outlines policies and methods to mitigate excessive noise generation and exposure. The Noise Element influences land use decisions, as excessive noise exposure is detrimental to human health in various ways and some land uses are particularly sensitive to noise.

The primary sources of noise in McFarland are Highway 99 and the railroad. The Noise Element includes goals, objectives, policies, and programs intended to protect sensitive receptors from noisy areas, minimize noise generation within the City, and plan noisy land uses for appropriate areas such as the Highway 99 corridor. It also seeks to explore the potential for sound barriers or sound walls to be built to reduce noise exposure for existing sensitive receptors near Highway 99 and the railroad.

Community Design

Community design and sense of place refer to the unique character and features of the built environment and natural landscape of a community. The Community Design Element of the General Plan is optional. Its roles are to identify existing conditions of McFarland's built environment and to suggest ways to preserve or enhance desirable community attributes through a set of goals, policies, and actions. The Community Design Element also provides the basis for aesthetic regulation of all development and offers specific guidelines to enhance the sense of place and quality of life for McFarland residents. These guidelines bring together the principles of other elements in an overall set of policies to guide the form and appearance of McFarland's neighborhoods, streetscapes, and buildings.

Hitherto, McFarland has had limited ability to attract visitors and travelers. The downtown corridor has the potential to serve visitors and residents but is mostly underdeveloped and the absence of area design guidelines has led to non-pedestrian scale streets and building facades with little cohesion. This element provides additional direction for the prescriptions ascribed to uses in the Land Use, Circulation, and Housing Elements as determined by the Preferred Growth

Alternative. This additional direction includes not only the identification of McFarland's development pattern, form, and structure, but also the unique characteristics of the City that together form its sense of place. The Preferred Growth Alternative emphasizes infill development, complete streets, and safety enhancements throughout the City. Implementation of community design policies can help the City attain future goals and create an inviting and attractive atmosphere with a distinguished identity. The goals, objectives, policies, and programs outlined in this element aim to entice people to actively participate in community events and feel a sense of pride in being part of the City.

Public Facilities

The Public Facilities Element is optional. It describes the facilities and services provided by the City of McFarland to residents and businesses and identifies areas that may need improvement to accommodate growth. It does this by providing a policy basis to enable the City to meet infrastructure, service, and resource needs. Topics examined in this chapter include water supply, stormwater, wastewater, recycling and solid waste, police and fire services, school facilities, and library facilities.

The goals, objectives, policies, and programs in the Public Facilities Element seek additional development where there is existing capacity to support it. Development east of Highway 99 is limited due to the sewage capacity and flooding risk, and this is not anticipated to change. Stormwater projects are anticipated in the west to reduce flooding issues. Anticipated population growth would require expanded school facilities to accommodate more students, especially at the high school level. There is also an identified need for senior and medical care facilities. Police services for the City lack desired levels of staffing and as a result the desired level of service is not currently met. Water quality should continue to be monitored and reported as groundwater levels lower and contaminants become higher.

Sustainable Agriculture

The Sustainable Agriculture Element is optional and addresses managed production and conservation of agricultural lands to sustain the role of Agriculture as a mainstay of the local economy while it contributes to the State economy. McFarland is host to many agricultural fields and Williamson Act parcels with high quality soils both within City limits and in the surrounding area. Since Agriculture is by far the largest industrial sector in the area, a separate optional Sustainable Agriculture Element is added to this General Plan update.

The abundant productive agricultural lands can hamper outward expansion via annexation. As McFarland continues to expand, the conversion of agricultural lands into residential and commercial uses and complimentary park space will become a large part of accommodating the City's projected growth. The Preferred Growth Alternative seeks to provide specific control at the planning level to both allow needed housing and commercial growth while also preventing "leap-frog" or unnecessary greenfield development. The goals, objectives, policies, and programs of the Sustainable Agriculture Element seek to preserve existing open spaces and

agriculturally productive land while allowing for responsible conversion of land for needed housing and commercial development.

Future Development Alternatives

Business as Usual

The Business as Usual Alternative is based on historic growth patterns and land use trends. The Business as Usual Alternative includes the expansion of the City and its Sphere of Influence (SOI) to the south including unrestricted conversion of agricultural land to various types of development. This alternative envisions primarily commercial and industrial development along Highway 99. Residential, institutional, and other development continues to the west and to the east of the Highway 99 corridor. Transportation systems remain automobile-oriented with some improvements for pedestrian connectivity and comfort. Extensive development, including residential development, occurs in 100-year and 500-year floodplains, presenting risks to life and property. Utilities must expand and improve to provide adequate capacity, especially wastewater and stormwater on the east side of the City.

Redevelopment and Moderate Growth

The Moderate Growth and Redevelopment Alternative advocates focusing growth on underutilized and vacant parcels to concentrate growth within walkable, bikeable, or bus-ride distances to retail and services. This alternative identifies 5 areas of proposed growth:

- Downtown Core
    - Mixed-use commercial and residential development close to shops, amenities, and public spaces.
- North and West Neighborhoods
    - Commercial infill, high density housing, and improved connectivity to activity hubs in the City.
- Southern Highway Commercial
    - New commercial area south of the City along Highway 99 to create opportunities for such businesses as grocery stores and retail centers that require large space.
- East Neighborhood
    - Mixed-use office buildings along the highway corridor, ADUs throughout the neighborhood, and improved connectivity to the west side of the City.

The Moderate Growth and Redevelopment Alternative prioritizes mixed-use designations and infill development to create growth within the City while reducing sprawl and improving residential transport connectivity. This alternative also offers diverse transportation options that address walkability and bike-ability between regions of the City and the expansion of existing bus transit service.

Smart Growth

The Smart Growth Alternative accounts for the most aggressive population growth for the City of McFarland, maximizing infill within the City and new development outside of the existing

City boundary to accommodate the maximum projected population, housing, and job growth. This alternative identifies three key areas for growth of housing and jobs across the City:

- Downtown Infill
    - The entire downtown core is to be designated for mixed-use development which would allow buildings to host commercial or office on the first floor and residential units on the upper floors. This increase in density has the potential to offer density bonus opportunities for affordable housing developers.
- Westside Expansion
    - A range of low-to-high density residential developments to accommodate projected population growth. High-density residential development is proposed along the westside's main arterial roadway, Garzoli Avenue, while medium and low-density housing is proposed on slower moving residential streets.
- Highway 99 Improvements
    - This area promotes highway-serving commercial uses such as gas stations and hotels, as well as industrial uses such as manufacturing along Highway 99.

The Smart Growth Alternative focuses its aggressive growth in three key areas to serve the needs of neighborhoods, the region, and travelers on Highway 99. To avoid locating new residential development in hazard areas, the Smart Growth Alternative increases the density of housing typologies, particularly in the Downtown Infill and Westside expansion key growth areas. Additionally, new mixed-use and commercial development are prioritized in the Downtown Infill to support a vibrant downtown core and at key intersections within the Westside Expansion key growth area (Garzoli Avenue at Perkins, Sherwood, and Taylor Avenues). Commercial development is also prioritized along Highway 99 to encourage highway travelers to stop for services in McFarland.

Preferred Growth Alternative

The Preferred Growth Alternative is the vision for development changes in McFarland by the year 2040. This Alternative includes a combination of the community's preferred concepts, derived from the previous three alternatives. The Preferred Growth Alternative influences future land use designations, housing allocation, and circulation improvements needed to meet the population growth projections and targets for job growth.

The main features of this alternative include medium and high density mixed-use downtown and along major arterials west of downtown as well as the establishment of neighborhood retail centers. This provides the opportunity to integrate housing and commercial uses, making services readily accessible to large segments of the population. In addition to mixed use commercial, this alternative includes commercial uses along Highway 99 to cater for pass-through traffic and industrial uses to the south to boost the availability of jobs. The Preferred Alternative therefore includes the following variety of changes to land use:

- Infill development for housing and commercial growth on the west side of the City.

- A neighborhood commercial corridor along Kern Avenue to serve the east side of the City.
- Downtown mixed-use redevelopment to create a vibrant atmosphere in the center of the City.
- Commercial and industrial development along Highway 99.
- Additional Accessory Dwelling Units in the Central McFarland neighborhoods.

Circulation for this alternative, includes a network of complete streets, a pedestrian and bike network, new transit stops for internal transit service and at major commercial centers along Highway 99, and safer pedestrian crossings between the east and west sides of the City. These new circulation connections are to expand multi-modal transportation throughout the City.

The alternative concentrates development in key growth areas to target McFarland's most optimal locations for development: Downtown, Western McFarland, and the Highway 99 Corridor. Growth areas are designed to accommodate maximum growth while aligning with McFarland's desires to remain an agriculture-based City. Even with the many changes, McFarland's small-town community character is envisioned to remain. The full description of the Preferred Growth Alternative (Chapter 5) includes the identification of further implications for each of the General Plan elements.

Element Goals

Land Use

Goal LU 1. A well-balanced mix of uses.
Goal LU 2. Compact urban form.
Goal LU 3. Compatible land uses.

Circulation

Goal CIR 1. A safe, comfortable, and aesthetically pleasing transportation system.
Goal CIR 2. An integrated, multimodal transportation system.
Goal CIR 3. A sustainable transportation system.
Goal CIR 4. An equitable transportation system.

Housing

Goal HO 1. High quality residential neighborhoods.
Goal HO 2. Equal housing opportunities for all community members.
Goal HO 3. Enough housing opportunities for all income groups.

Economic Development

Goal ED 1. A resilient local economy.
Goal ED 2. An appealing place to live and work.
Goal ED 3. A supportive, business friendly, and business ready environment.

Safety

Goal SAF 1. A safe and steadfast community.

Goal SAF 2. A community resilient against natural hazards.
Goal SAF 3. A community protected from human-made hazards.
Goal SAF 4. A community responsive to and resilient against emergencies.

Conservation

Goal CON 1. Resilience to flooding.
Goal CON 2. Efficient use of water and energy.
Goal CON 3. Protecting and respecting rare and endangered wildlife.

Open Space

Goal OS 1. Attractive, accessible, and comprehensive open spaces.
Goal OS 2. An engaged, active, and proud community.

Air Quality

Goal AQ 1. Clean air for McFarland.
Goal AQ 2. A climate-adapting community.
Goal AQ 3. A well-informed community.

Health

Goal HTH 1. Equitable access to healthcare.
Goal HTH 2. A physically active community with decreased rates of obesity.
Goal HTH 3. A variety of affordable healthy food options.

Environmental Justice

Goal EJ 1. A clean community.
Goal EJ 2. A quiet community.
Goal EJ 3. Accessible community programs and facilities for all residents.
Goal EJ 4. A healthy community.
Goal EJ 5. An active and involved citizenry in decision-making processes.

Noise

Goal NOI 1. Quiet residential streets, schools, churches, and healthcare facilities.
Goal NOI 2. Protection of existing noise-sensitive receptors.
Goal NOI 3. A built environment that minimizes noise generation.
Goal NOI 4. New economic and commercial activity in noise-appropriate areas.

Community Design

Goal CD 1. An attractive and uniform city.
Goal CD 2. A thriving central town core.
Goal CD 3. An accessible and safe community.

Public Facilities

Goal PF 1. A city with high-quality and efficient public utilities.
Goal PF 2. A city that addresses solid waste efficiently.
Goal PF 3. A safe and peaceful community.
Goal PF 4. A high-quality education system.

Goal PF 5. A community with a healthy youth and political environment.
Goal PF 6. Safe and accessible facilities citywide.

Sustainable Agriculture

Goal AG 1. Protected agricultural resources.
Goal AG 2. Sustainable development practices.
Goal AG 3. A robust agricultural economy that coexists with urban development.
Goal AG 4. Authentic, healthy, and sustainable food production for healthy people and planet.
Goal AG 5: A healthy and competitive agricultural industry
Goal AG 6: Stable agricultural uses at the edges and beyond McFarland's urban service area
Goal AG 7: Freedom to manage agricultural operations in an efficient, economic manner with minimal conflict with non-agricultural uses
Goal AG 8: Convenient and accessible co-location of agriculture-related support uses in agricultural production areas
Goal AG 9: Adequate supply of farm worker and farm family housing
Goal AG 10: Available alternative resources for agricultural production
Goal AG 11: Rapid and efficient agricultural permit processing procedures

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1. INTRODUCTION

1.1 The Community and Planning Area

1.1.1 Setting

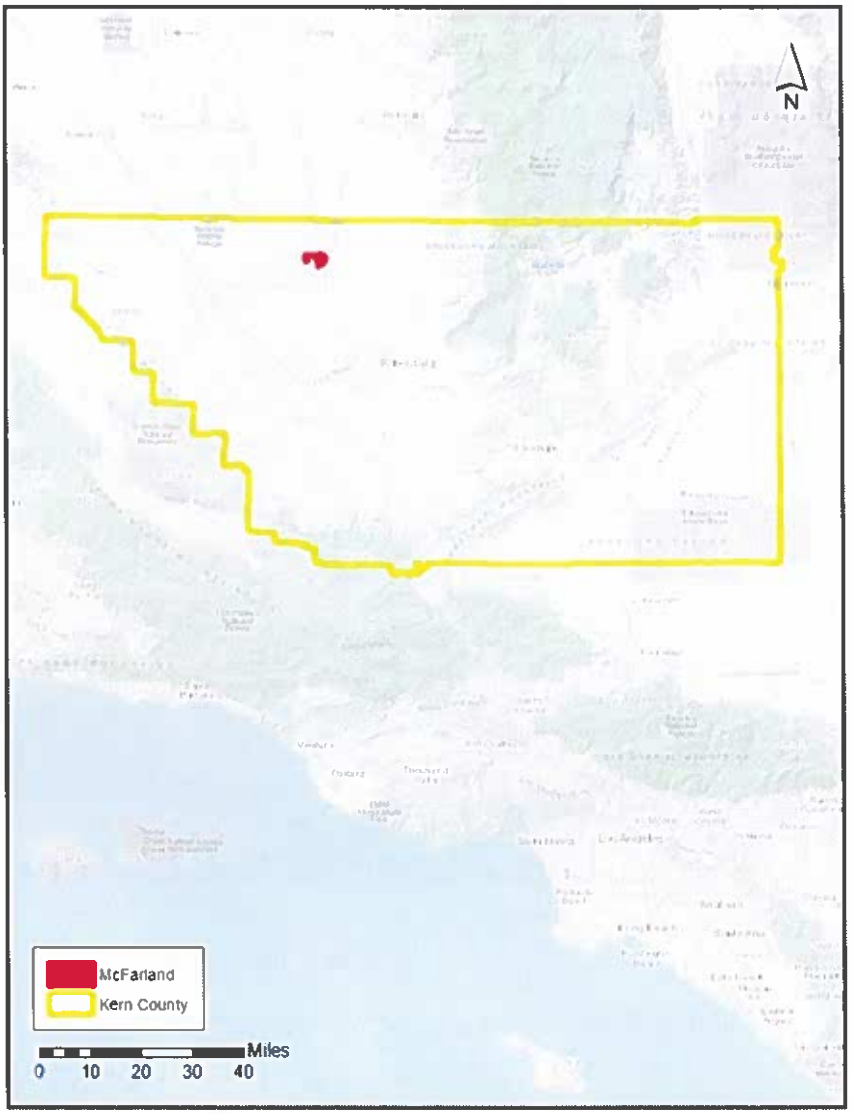
The City of McFarland sits in the northern section of Kern County within California's Central Valley. Map 1-1 displays the location of McFarland in relation to the State of California. Map 1-2 displays the location of McFarland within Kern County. The City is located along Highway 99, approximately 25 miles north of Bakersfield and approximately seven miles south of Delano. McFarland's boundaries encompass approximately three-square miles of land consisting of mostly residential, institutional, and agricultural uses. McFarland's Sphere of Influence and the surrounding area are primarily agricultural.

McFarland's climate consists of hot and dry summers and cool winters. Annual rainfall averages seven inches and average snowfall is zero inches. McFarland experiences sunny days for 274 days per year on average.

Map 1-1: Location of McFarland within the State of California.



Map 1-2: Location of McFarland within Kern County



1.1.2 Demographics

McFarland's population as of 2017 was 13,930. The distribution depicts a high concentration of younger individuals as shown in Figure 1-1. The median age in McFarland was 26 years old. McFarland had higher percentages of young children and teenagers and lower percentages of older working adults and seniors than Kern County and California as shown in Table 1-1. McFarland's population was predominantly white alone as shown in Table 1-2. It was also 96% Hispanic or Latino as shown in Table 1-3. Most of McFarland's residents identified as white in terms of race and Hispanic or Latino in terms of ethnicity, as categorized by the US Census.

McFarland's median household income was $35,069, or 69% of Kern County's and 52% of California's as shown in Table 1-4. The poverty rate in 2017 was 36%, much higher than in Kern County or California as shown in Table 1-5. The unemployment rate in McFarland was also higher than the surrounding area at 14.2% as shown in Table 1-6.

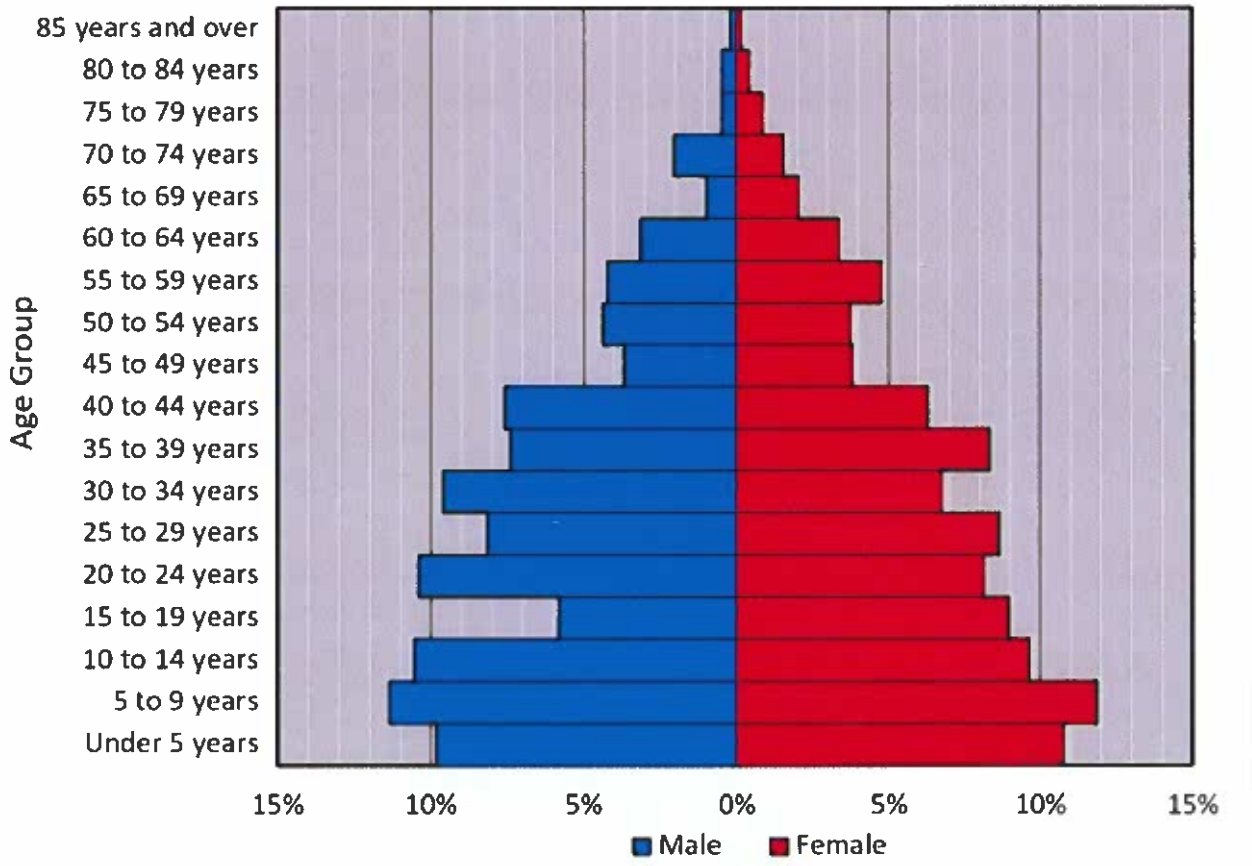


Figure 1-1: Population pyramid for McFarland in 2017.

Table 1-1: Age Distribution, 2017

Age	McFarland		Kern County		California	
	Population	Percent	Population	Percent	Population	Percent
Under 5	1,425	10	71,850	8	2,493,545	6
5-17	3,662	26	185,802	21	6,621,175	17
18-24	1,669	12	94,806	11	3,917,309	10
25-44	4,383	31	243,625	28	11,002,942	28
45-64	2,162	16	193,434	22	9,799428	25
65+	629	5	89,227	10	5,148,448	13

Source: U.S. Census Bureau; 2017 American Community Survey Table S0101 5-Year Estimates

Table 1-2: Racial Composition as a Percentage of Total Population, 2017			
	McFarland	Kern County	California
White alone	88.5	75.1	60.6
Black / African American alone	0.9	5.5	5.8
American Indian / Alaska Native alone	0.2	1.1	0.7
Asian or Pacific Islander alone	0.2	4.9	14.5
Some Other Race alone	8.8	10.1	13.7
Two or More Races	1.4	3.4	4.7
Source: U.S. Census Bureau; 2017 American Community Survey Table B02001 5-Year Estimates			

Table 1-3: Hispanic or Latino Ethnicity as a Percentage of Total Population, 2017			
	McFarland	Kern County	California
Hispanic or Latino (of any race)	95.6	52.2	38.8
Not Hispanic or Latino (of any race)	4.4	47.8	61.2
Source: U.S. Census Bureau; 2017 American Community Survey Table B03001 5-Year Estimates			

Table 1-4: Median Income, 2017			
Age	McFarland	Kern County	California
Median Family Income	$34,840	$55,176	$76,965
Median Household Income	$35,069	$50,826	$67,169
Source: U.S. Census Bureau; 2017 American Community Survey Table S1901 5-Year Estimates			

Table 1-5: Percent of Residents Below Poverty Level, 2017			
	McFarland	Kern County	California
Percent of residents below poverty level	35.9%	22.6%	15.1%
Source: U.S. Census Bureau; 2017 American Community Survey Table S1701 5-Year Estimates			

Table 1-6: Unemployment Rate, 2017			
	McFarland	Kern County	California
Unemployment rate	14.2%	10.7%	7.0%
Source: U.S. Census Bureau; 2017 American Community Survey Table S2301 5-Year Estimates			

1.1.3 History

The City of McFarland was founded in 1909 by an educator named James Boyd McFarland, who moved to California from Ohio and purchased 50 acres of land in what is now McFarland. His purchase was based on his observations that the land had the potential to become prime agricultural land in the pristine San Joaquin Valley. As the burgeoning agricultural industry expanded in the valley, the City of McFarland grew.

McFarland experienced significant growth in the 1930s during the Great Depression as people moved westward from the drought-impacted mid-western states. Growth in the City was in part spurred by the City's location with freight rail lines operated by the Union Pacific Railroad bisecting the City in the north-south direction.

In 1950, Highway 99 was constructed and served as a major corridor connecting many Central Valley cities. Highway 99 connected McFarland to the wider region causing the area to experience population growth throughout the 1950s, leading to its incorporation in the summer of 1957. The highway construction also separated the City into two distinct sides that characterize McFarland's form today.

For the remainder of the 20th century, McFarland continued to experience various periods of growth as the farming community became a full-service city within Kern County. In the 1980s, McFarland High School's cross-country team, with guidance from their coach, Jim White, won nine state titles. The events that brought McFarland great amounts of positive press were dramatized in the 2015 Disney-produced film "McFarland, USA" which centers on the award-winning cross-country team and their impact on the City of McFarland.

1.1.4 Planning Area and Sphere of Influence

Prior to 2020, the planning area for the City of McFarland encompassed approximately 12.12 square miles (7,760 acres), located south of the City of Delano and north of the City of Bakersfield. The area included both the east side and west side developments situated around the north-south Highway 99 and Union Pacific railroad rights-of-way. The Sphere of Influence (SOI) created by the Local Area Formation Commission (LAFCO) is defined as the planning boundary outside of the City's legal boundary that designates McFarland's probable future boundary and service area. The planning area is defined as the area to which this document refers, which is compiled from the boundaries of existing and potential future extents of the City and its sphere of influence. This document details the future development of the City. The City's SOI is slated to be expanded in 2020 with inclusion of the land along Highway 99 south toward the intersection with Highway 46. This proposed expanded Sphere of Influence is to encompass approximately 18.37 square miles (11,760 acres) and stretches south toward State Route 46 and the Famoso interchange. Since a Sustainable Agriculture Element is included in this General Plan update and agricultural lands surround the City and its SOI, the "study area" extends slightly beyond the proposed SOI to cover an area of approximately 23 square miles or 14,760 acres.

1.2 Purpose, Intent, & Legal Authority

1.2.1 Long Range Planning

California State law requires all cities and counties to prepare a comprehensive General Plan. The General Plan is to guide future development in the jurisdiction and is the foundation upon which all land use decisions are based. It includes goals for the future of the jurisdiction and outlines policies and programs to achieve those goals.

This General Plan update became necessary as McFarland's existing General Plan approached 30 years of age. The update was a collaborative effort between the City of McFarland and a class of 16 second year graduate students in the Master of City & Regional Planning program at California Polytechnic State University (Cal Poly) at San Luis Obispo under faculty supervision.

1.2.2 Regional Coordination

The City of McFarland is located within Kern County in the Central Valley of California. McFarland, Kern County, and ten other cities make up the Kern Council of Governments (Kern COG or KCOG), a Metropolitan Planning Organization (MPO), which aids in regional planning and coordination efforts and focuses primarily on transportation, though it is also involved with air quality, housing, and other issues.

1.3 General Plan Overview

1.3.1 Elements of the General Plan

Seven elements are required for all General Plans in California, with two further elements required for communities meeting criteria. Optional elements may also be included, and they carry the same legal force and status as the rest of the Plan. In this General Plan update, five optional elements are included.

- **Required:** Land Use, Circulation, Housing, Safety, Conservation, Open Space, and Noise
- **Required in San Joaquin Valley Air Pollution Control District:** Air Quality
- **Required in Disadvantaged Communities:** Environmental Justice
- **Optional:** Economic Development, Health, Community Design, Public Facilities, and Sustainable Agriculture

Land Use

The Land Use Element is required and designates the location, type, and concentration of land use in a city and ensures that neighboring land uses complement one another. The main land use categories include residential, institutional, commercial, industrial, and open space.

Circulation

The Circulation Element is required in a General Plana and it focuses on the movement of people and goods. To fulfill this, the Circulation Element centers on transportation circulation. It is closely related to the Land Use, Housing, Open Space, Noise, and Safety elements.

Housing

The Housing Element is required and it must meet legal requirements from the State Housing Element Law. The Housing Element examines housing and household characteristics, such as housing for vulnerable populations, affordability, and long-term housing needs that provide access to people from all economic backgrounds.

Economic Development

Economic development refers to the process by which the economic well-being and quality of life of a local community is improved. The optional Economic Development Element is to guide the community in expanding, attracting, and retaining businesses to support vibrant and diverse economic activities.

Safety

The Safety Element is required in the General Plan. It describes and coordinates the municipal and civilian response to natural and man-made hazards including flood, fire, drought, seismic, geologic, and climate hazards. The Safety Element coordinates existing information on hazardous conditions in combination with the predicted change in natural conditions.

Conservation

The Conservation Element is required in the General Plan and addresses the conservation, development, and utilization of natural resources including water, forests, soils, wildlife, and minerals. The Conservation Element sets goals and policies for the preservation and development of land and agriculture.

Open Space

The Open Space Element is required in the General Plan and defines comprehensive, long-range goals and objectives involving preservation of open space and recreational space. In particular, the element is to present information on three uses for open space within a city: agricultural production, natural resource management, and reasonable access to open spaces for public health and safety. As a mainstay of the City's economic base, the subject of agriculture is covered in a separate Sustainable Agriculture Element.

Air Quality

The Air Quality Element addresses the quality of air in the community and establishes methods of improving air quality. The Governor's Office of Planning and Research (OPR) mandates that communities develop an Air Quality Element if they are within the jurisdiction of the San Joaquin Valley Air Pollution Control District.

Health

The optional Health Element categorizes, labels, and articulates different health needs impacting the mental and physical well-being of citizens. A health-oriented community has access to healthcare, healthy food options, recreational opportunities, active and mass transportation modes, and a clean environment.

Environmental Justice

The City of McFarland is required by law to have an Environmental Justice Element due to its designation as a disadvantaged community. The purpose of the Environmental Justice Element

is to identify objectives and policies to reduce compounded health risks including pollution exposure, food insecurity, and insufficient physical activity. The element also requires jurisdictions to promote public participation in the decision-making process and prioritize the needs of disadvantaged communities.

Noise

The Noise Element is required in the General Plan and identifies noise sources and noise sensitive land uses and contains goals, policies, and programs to mitigate noise impacts. The Noise Element helps guide the Land Use Element and land use decisions to minimize excessive exposure to noise.

Community Design

Community design refers to the unique character and features of a city's built and natural environment. The purpose of this optional element is to help establish a sense of place by highlighting the positive aesthetic and functional qualities of a city. These qualities can be classified under a wide variety of features including streetscapes, parking lots, architecture, landscaping, signage, commercial development, and residential development. Formalizing these characteristics into a Community Design Element helps define a location and improves quality of life for residents and visitors.

Public Facilities

The Public Facilities Element is optional and details the existing conditions and standards of the services, infrastructure, and utilities that are provided by the City. The element covers such infrastructure as water systems, utilities, waste management, safety services, schools, parks, and public buildings. These systems are important to maintain a high quality of life in the community.

Sustainable Agriculture

The Sustainable Agriculture Element is optional and addresses managed production and conservation of agricultural lands to sustain the role of Agriculture as a mainstay of the local economy while it contributes to the State economy. The policies under the Sustainable Agriculture Element seek to preserve existing open spaces and agriculturally productive land while allowing for responsible conversion of land for needed housing and commercial development.

1.3.2 Contents of Elements

During this General Plan update, the planning team researched the existing conditions in the City of McFarland. This information was collected from community members during public meetings and community outreach, as well as through field research, reviews of planning documents and development patterns, and other relevant sources. Goals, objectives, policies, and programs were developed based on the information found by the planning team,

combined with input from the community. The format for these goals, objectives, policies, and programs are as follows:

Goal
A goal is a general direction-setter. It is an idealized vision of the future with respect to public health, safety, or general welfare. A goal is a general expression of community values that may be abstract. Thus, a goal is generally not quantifiable or time dependent.

Objective
An objective is a specified end, condition, or state that is an intermediate step toward attaining a goal. It is often specific, measurable, achievable, realistic, and time dependent. An objective may relate to one specific aspect of a goal, or it may be one of several successive steps towards achieving a goal. Thus, there may be more than one objective for each goal.

Policy
A policy is a specific statement that guides decision-making. It indicates a commitment of a local legislative body to a particular course of action. A policy is based on, and helps implement, the objectives and goals of the General Plan.

Program
A program implements a General Plan policy. Jurisdictions draft programs to be specific to implement policies, meet objectives, and ultimately work towards goals.

1.4 References

U.S. Census Bureau; 2017 Census of Population and Housing, *Age and Sex*; McFarland, Kern County, and California; American Community Survey 5 Year Estimates, Table S0101; Retrieved October 11, 2019 from https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

U.S. Census Bureau; 2017 Census of Population and Housing, *Employment Status*; McFarland & Kern County, California; American Community Survey 5 Year Estimates, Table S2301; Retrieved October 11, 2019 from https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

U.S. Census Bureau; 2017 Census of Population and Housing, *Hispanic or Latino by Specific Origin*; McFarland, Kern County, and California; American Community Survey 5 Year Estimates, Table B03001; Retrieved October 11, 2019 from https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

U.S. Census Bureau; 2017 Census of Population and Housing, *Income in the past 12 Months (In 2017 Inflation-Adjusted Dollars)*; McFarland & Kern County, California; American Community Survey 5 Year Estimates, Table S1901; Retrieved October 11, 2019 from https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

U.S. Census Bureau; 2017 Census of Population and Housing, *Poverty Status in the Past 12 Months*; McFarland & Kern County, California; American Community Survey 5 Year Estimates, Table S1701; Retrieved November 4, 2019 from https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

U.S. Census Bureau; 2017 Census of Population and Housing, *Race*; McFarland, Kern County, and California; American Community Survey 5 Year Estimates, Table B02001; Retrieved October 11, 2019 from https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

2. PLANNING PROCESS

2.1 The Planning Team

The Planning Team for the McFarland General Plan update consisted of sixteen second year graduate students from California Polytechnic State University, San Luis Obispo in the Master of City and Regional Planning Program under the supervision of faculty. The team worked closely with the City of McFarland and dedicated stakeholders over the course of six months to complete an initial, comprehensive update to the City's General Plan. First a Background Report was produced as a culmination of background research and community input, developed to serve as the foundation for the development of goals, objectives, and policies in the General Plan update. This report includes the regulatory setting, overview of existing conditions, community feedback, and emerging directions related to each Element of the General Plan.

2.2 Community Planning Process

The planning process refers to the path taken to research, analyze, and integrate community input in the development of the written plan document. Figure 2-1 outlines the timeline of the three essential phases of the General Plan Process, which included the collection of information, analyzing of that information, and comparing growth alternatives.

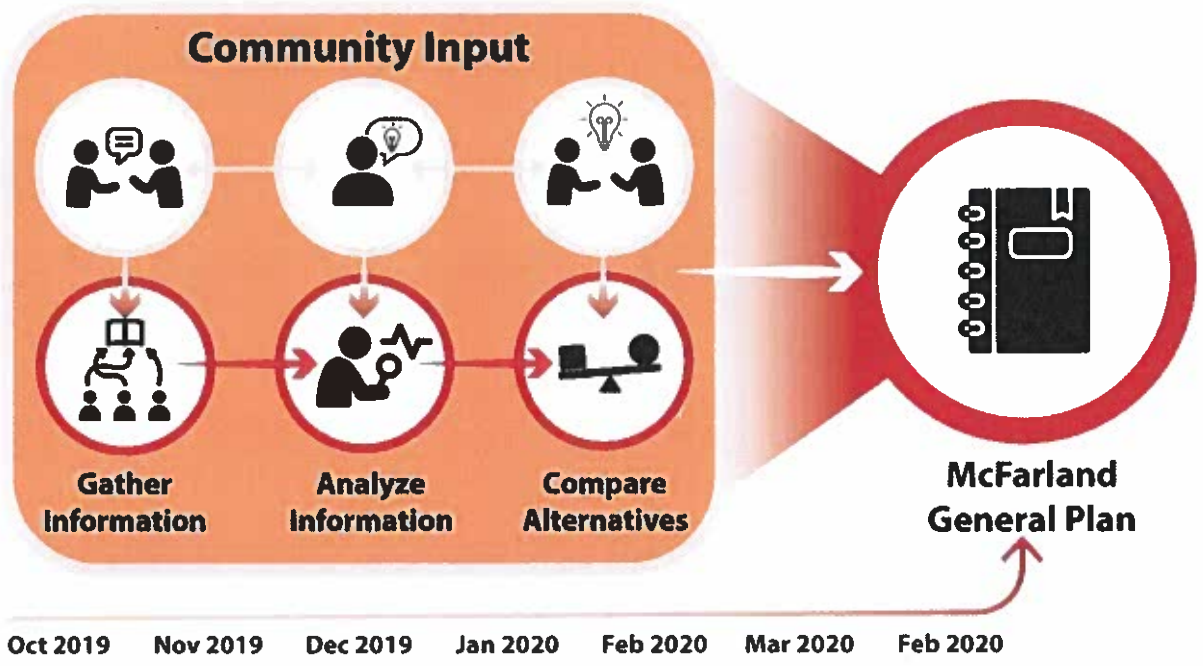


Figure 2-1: General Plan process diagram.

The planning process began in September 2019. The planning team began reviewing local and regional planning documents containing relevant codes and regulations in the region, while attaining an understanding of the demographics and history of McFarland. On October 24,

2019, the planning team hosted a community focus group meeting and requested input on the strengths, barriers, and wishes of McFarland residents. Following that meeting, the planning team analyzed community feedback and used it to guide the creation of questions for the community visioning meeting, which occurred on November 14, 2019. The second public meeting provided an opportunity for community members to communicate their preferences regarding specific components of the General Plan elements.

During the community visioning meeting, the planning team established a platform for community preferences to be identified through an interactive exercise affiliated with each of the General Plan elements. Information from both community meetings was analyzed and compiled into the Background report.

Community feedback is an important component of the planning process, and two more community meetings took place in February and March of 2020. These meetings nurtured a space for residents to share their perspectives on alternative growth approaches. The planning team then used this information to identify which growth development plan was right for McFarland and most desired by its residents. Once completed, the draft General Plan was submitted to the City of McFarland for further review.

The General Plan has information regarding all the elements and identifies needs for future growth and development in McFarland. Following review of the draft Plan, the revised document was submitted to the City of McFarland for further action toward potential adoption.

2.2.1 Phase 1 Gathering Information

Initiated in September 2019, phase one was concerned with the collection of primary and secondary information. The planning team reviewed secondary data sources for the General Plan, including federal, state, county, and local documents. The planning team reviewed existing demographic data and historical information on McFarland. The team collected primary data through the community feedback meetings and from a comprehensive land use inventory. During the public meetings, primary data was collected about existing strengths, weaknesses, and desires of the residents, along with an identification of the priorities for the future of McFarland. The land use inventory involved data collection by members of the planning team on existing land uses, sidewalk conditions, and building conditions in McFarland.

2.2.2 Phase 2 Analyzing Information

Phase two began in November 2019 and consisted of an analysis of the information collected during Phase 1. The planning team used information related to community-defined strengths, barriers, and wishes to identify themes affiliated with each of the General Plan elements. This analysis remained in progress, as the planning team continued to collect community input and attain community knowledge from citizens, community leaders, and local government staff.

2.2.3 Phase 3 Comparing Alternatives

The third phase of the planning process was the formation and comparison of alternative growth strategies. Questions answered by the community during preference exercises contributed to the development of alternative growth strategies, which commenced in January 2020.

The review of existing documents and collection of community input from residents, officials and stakeholders enabled the creation of a General Plan document that frames the future development of McFarland. The planning team continued to collect community input throughout the duration of the process to create a comprehensive document that reflects the aspirations of the community.

2.2.4 The McFarland General Plan

This is a comprehensive update and expansion of McFarland's General Plan based on extensive research and analysis of existing information sources. The previous General Plan was prepared in 1988 with sporadic updates to certain sections in 2011 and later years. The planning team worked with the people of McFarland to develop an updated General Plan that represents the needs identified by the community in late 2019 and early 2020. This plan is developed to be vertically consistent with State regulations and reflective of McFarland's community needs. The Plan includes two essential volumes of planning documents for McFarland: The Background Report and the Draft General Plan.

2.3 Research Methods

Information for the background report was collected from September through November of 2019. Three main research methods were used during this process:

1. Two public meetings were held to connect with residents and engage them in the planning process to gain feedback on community aspirations.
2. Field work was conducted to develop a land use inventory of existing conditions within McFarland.
3. Secondary research was done to identify appropriate standards, policies, and programs related to each General Plan element.

2.3.1 Primary Research

Primary research is defined as original research, conducted to find answers to specific issues or questions. The process can involve questionnaires, surveys, or interviews with small groups or individuals. As part of the primary research methods, the planning team organized two community meetings. The initial meeting identified community views related to strengths, barriers, and wishes for McFarland. The second meeting centered on the community's preferences for the future of McFarland. The other main primary method used was the land use inventory.

2.3.1.1 Focus Group Community Meeting

Meeting 1, the Focus Group Community Meeting, was held on October 24, 2019 from 5 PM to 7 PM at the McFarland Community Center. The meeting included a presentation about requirements and elements of the General Plan and goals for the project. Then followed group discussion with community members about the strengths, barriers, and wishes for McFarland.

Meeting 1 provided a brief explanation of what a General Plan is, its purpose, information and elements included, and what it works towards. Then community members formed smaller focus groups to partake in discussions. The focus groups were asked the following three questions:

- What are the strengths of your community?
- What does your community lack?
- What would make your community better?

The meeting participants were provided with a few minutes to answer questions on colored sheets provided to them by the planning team. This was followed by short discussions with other participants to share ideas and voice thoughts. Planning team members acted as facilitators to guide the conversation and recorded all ideas shared at each table. Once all the questions had been answered, each focus group nominated a community member to share their thoughts with all meeting participants.

The information and discussion from the meeting were provided in both English and Spanish. Approximately 25 community members were in attendance. Following the meeting, planning team members went to a community cook-off event on November 3, 2019 to share similar information about the General Plan update.

2.3.1.2 Community Preferences Meeting

The second meeting, the Community Preferences Meeting, was held on November 24, 2019 from 5 PM to 7 PM at the McFarland Community Center. The meeting included a presentation and three breakout sessions with 15-minute interactive preference activities.

The meeting provided a brief definition of each element in the General Plan, the status of each element in McFarland, the community strengths, barriers, and wishes as they relate to each element, and emerging directions that were compiled from the information collected from the first community meeting and other research activities. The elements were presented in groups of four, followed by breakout sessions led by the planning team. The three 15-minute breakout sessions looked for community preferences related to each element presented. The members of the community in attendance were given stickers to answer question boards based on their individual preferences. The participants were also given the opportunity to place more than one sticker in response if they had strong feelings about certain options on the board. The results of the preferences were collected and summarized for the community members.

The information and discussion from the meeting were provided in both English and Spanish. Around 20 people were in attendance. Following this meeting, additional information was collected using an online survey to collect more data on the community preferences.

2.3.1.3 Land Use Inventory

The land use inventory was a primary data collection effort composed of data collected about the community. The planning team completed a site visit to McFarland and walked throughout the planning area. The community was divided into seven neighborhoods for observation. The planning team worked in two-person teams to collect the data for the inventory to attain an understanding of the existing land uses, building conditions, and sidewalk availability and conditions per parcel. The assessed information was obtained from the site visit conducted on October 14 to capture these criteria:

- Active land use(s)
- Number of structures on parcel
- Number of stories for each structure on parcel
- Mixture of uses on each parcel
- Number of units per structure
- Condition of the structures
- Presence of sidewalks
- Vacancy in structures

The planning team entered characteristics for each parcel into iPads installed with HanDBase database software. This software allowed the planning team to organize, export, and merge data from the fieldwork onto the computer for further analysis using Excel and GIS software. The data from the land use inventory is compiled into GIS and an existing land use map in the Background Report.

2.3.2 Secondary Research

Secondary research methods included the summary, collation, and merger of existing research documents. This research method is used to understand the background of McFarland and regulations that apply to the City, along with all existing documents concerned with the City. The planning team had used government documents, US Census data, historical documents, planning documents, and other related documents to develop a comprehensive understanding of McFarland. The information compiled was used to compile the Background Report.

2.3.3 Themes in Community Feedback

Themes from the community feedback collected from the meetings can be found in this section. In multiple instances, themes are repeated within the summary to capture shared themes across the different elements.

2.3.3.1 Community Meeting 1: Focus Groups

Date: Thursday, October 24, 2019

Land Use

In the initial community meeting, residents shared their strengths, barriers, and wishes for the City as it relates to land use. Strengths for land use largely pertain to the location of parks within the City and the new residential development that is located on the western edge of the City. In addition, residents stated that sidewalk improvements in downtown enhanced the atmosphere within the City. Community barriers related to land use were limited housing options, a lack of medical care facilities, and minimal development on the east side of the City. Community wishes included more industrial development, affordable housing options, and expanded retail options, including restaurants and car dealerships.

Circulation

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to circulation. Strengths were related to the presence of Highway 99 and numerous resurfaced roads within the City. Also, the downtown beautification was praised for improving the sidewalks. The listed barriers included limited connections between the east and west sides of the City; lack of regional connections between Delano, Wasco, and Bakersfield when using public transportation; and outdated crossing infrastructure.

Housing

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to housing. Their strengths included the newer residential developments in the City. Barriers included limited housing options and affordable housing choices. Wishes for McFarland included better housing stock on the east side, affordable housing options, and an incentive program for public employees to become homeowners.

Economic Development

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to economic development. The strengths included mobile vendors, the proximity to the highway that allows for retail opportunities, and the centralized downtown that has opportunities to expand into a robust commercial center. Community-identified barriers included a low number of businesses on the east side of the City, a distinct lack of local businesses, and a lack of career training opportunities for residents. Other barriers were related to the lack of big-box retailers and other related commercial establishments. Wishes collected from the community input were to expand revenue-generating commercial uses in the City, organize summer events to generate income for local commerce, and expand hotel lodging options.

Safety

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to safety. The results from the initial meeting showed pronounced interest in safety as it related to natural hazards. No strengths that related to safety were mentioned in the meeting. Barriers included a lack of evacuation plan, missing drainage and flood control infrastructure, and a lack of emergency drills to train residents how to respond to emergencies. No community wishes as they related to safety were identified in the meeting.

Conservation

In the first community meeting, no information on barriers or wishes were collected from the community members. The strength was related to the City's ability to utilize resources with efficiency.

Open Space

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to open space. Strengths include the good quality of the parks, well organized youth sport organizations, and a youth population interested in sport-related activities.

Air Quality

In the first community meeting, residents shared their concerns pertaining to the surrounding local air quality. Strengths and barriers related to air quality were not shared in the meeting, but a single wish was shared that asked for better air quality. The single comment also noted that air quality was affected by the presence of agriculture in the region surrounding the City.

Health

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to health. Comments included lack of access to medical care facilities, rehabilitation centers, and activities for the City's senior community members. Information was not forthcoming about strengths. Barriers included a lack of healthcare facilities for physical and mental health, along with a lack of activities for senior citizens. Wishes for the community were gathered and related to a need for medical facilities in the City. In addition, a distinct wish for mental health care facilities was noted. Another wish of note was a comment on expanded daycare options for parents with younger children.

Environmental Justice

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to environmental justice. Strengths included the presence of sidewalks on many City blocks, with a note for more sidewalks in sections of the City lacking in sidewalks. Barriers included missing connections between the two sides of McFarland and contrasting quality of infrastructure between the east and west side, with lower-quality infrastructure on the east side. Wishes included expanded public service programs related to the City's senior

center and for improved air quality, as the agricultural industry impacts McFarland's air conditions.

Noise

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to noise. The information collected revealed that residents found noise produced by the railroad as a barrier and an issue they wished to be fixed. A comment tangentially related to noise was a desire expressed by community members to have some nightlife and clubs or bars within downtown McFarland.

Community Design

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to community design. Strengths included the City's tight-knit neighborhoods that create a unique community spirit. This spirit is emulated by local building styles with multiple churches providing community centers. Some residents considered the small-town character and atmosphere as a barrier. Wishes included an incentive program to provide beautification for buildings within the City and improved crossings over Highway 99.

Public Facilities

In the first community meeting, residents shared their strengths, barriers, and wishes as they related to public facilities. Residents in attendance expressed their satisfaction with the quality of the parks within the City, the school programming that provided activities for youth, and clean facilities located throughout the City. Barriers included a lack of lighting in some areas of the City and a distinct lack of sidewalks, lighting, and infrastructure on the east side of the City.

Sustainable Agriculture

In the first community meeting, residents shared comments related to agriculture. They considered the scenic setting that agriculture fields provide as a strength, but the air quality impacts of agricultural operations a barrier. Residents wish for a farmer's market where they can purchase fresh foods.

2.3.3.2 Community Meeting 1: Strengths

In summary, residents identified the following strengths in the City of McFarland:

- Strong sense of community, identity, and pride.
- Great churches and faith services.
- Strong support for veterans.
- Sense of safety, peace, and stability in McFarland.
- Family-friendly community.
- Beautification has begun through recent infrastructural improvements.
- Many clubs, organizations, and recreational opportunities are available to residents.
- Schools always have many activities going on.

- Good communication between the City and the community.

2.3.3.3 Community Meeting 1: Barriers

In summary, residents identified the following as barriers challenging the City of McFarland:

- Limited pet-friendly areas
- Lack of equality in businesses, services, and beautification efforts across the City
- Limited lighting in public areas
- Much infrastructure is outdated
- Limited athletic events
- Speed limits were not enforced
- Highway did not draw people into McFarland
- Poor connections between the east and west sides of the City
- Lack of regional connections to surrounding communities
- There was no emergency evacuation plan
- Lack of gas stations
- Lack of major businesses
- Limited health care opportunities
- Unemployment was high in the winter
- Missing recreational facilities
- Limited affordable housing opportunities
- Lack of local businesses
- Lack of safety and police services

2.3.3.4 Community Meeting 1: Wishes

In summary, residents wished for the following:

- Incentives for City beautification
- Crossing improvements for Highway 99
- Increase in local businesses and economic development
- Improved highway entrances and traffic control
- Integration of trade programs within educational opportunities.
- Further engagement with new technologies
- More opportunities for restaurants, retail, and entertainment
- Opportunities for daycare and senior services
- More variety and affordability in housing stock
- Programs for art and recreation for youth
- New City Hall or government centers
- Implementation of mental health services and education
- Increase in community and cultural events
- Better interaction between government and citizens

- Tertiary water treatment for more usable water

2.3.3.5 Community Meeting 2: Preferences

Date: Thursday, November 14, 2020

Land Use

In the second community meeting, the resident's preferences on land use decisions were the central focus. The community members were asked to select from a set of options for questions and to indicate their top choices by placing sticker on posters. The questions were created from feedback analyzed from the first meeting. When residents were asked where they would like to see development concentrated, most community members wanted eastern McFarland and the potential southern annexation area south of the 2019 City limits.

Circulation

In the second community meeting, community members were given a set of questions to encourage them to share their preferences on various improvements to McFarland as they related to circulation. Residents noted a preference for public transportation options and raised crosswalks. Respondents stated a preference for travelling to Bakersfield using public transit. Residents also noted that they would prefer to visit parks in McFarland using bicycles and to visit commercial businesses within the using public transit City.

Housing

In the second community meeting, residents were given a set of questions that focused on housing preferences. Residents were given a series of questions related to the future of housing development and improvements that they would prefer. Most residents preferred to maintain the single-family residential style developments that were abundant in the City. There were some responses that showed an interest in mixed-use residential development. Apartments were the most preferred type of affordable housing choice with a focus on low-income residents. In addition, community members noted that building maintenance was the most pressing issue in their neighborhoods.

Economic Development

The second community meeting allowed community members to answer a set of questions and asked for their preferences on each option presented to them. When McFarland residents were asked what types of industry there would want in their city, they noted a preference for distribution centers and manufacturing facilities. Residents also noted that they would like to see food service commercial in the City, and strip mall-oriented commercial development. Respondents also noted a desire for post-secondary education in mechanical, electrical, and healthcare fields.

Safety

In the second community meeting, residents were given a series of questions that related to safety concerns and potential improvements. Most residents in attendance noted that flood and drought were their most pressing concerns. Climate change was also noted as a potential threat to the community. Most residents stated that flooding occurred on the east side of McFarland.

Conservation

The second community meeting gave residents the space to choose their preferences related to conservation within McFarland. Most residents noted that they were concerned with water efficiency, with some votes indicating concern with energy efficiency. Residents also stated that they would prefer to see enhanced habitat space in vacant space within the City, in addition some votes indicated a preference for habitat space to be allocated in the streetscape and City parks. Residents in attendance also preferred renewable energy as an energy-saving option. The question about which water-saving strategy appealed to them indicated a preference for drought-tolerant plants to be implemented within the City.

Open Space

At the second community meeting, residents were given a set of questions related to open space concerns and improvements for the City. Residents in attendance noted their preference for water-wise landscaping in City parks. Residents also noted a preference for new sports facilities, dog parks, and upgraded facilities were also noted as preferred choices. Residents stated their preference for Mediterranean style landscaping for their yards, and that they preferred to walk or use their car to travel to parks. In addition, residents noted that the park they use the most was Jim White "Blanco" Park with McFarland Park also noted as a close second preferred recreational space.

Air Quality

At the second community meeting, community members responses solidified their concern with air quality within the City. Residents noted that they preferred both to limit industrial air pollutants and promote alternatives to driving to reduce air pollution within McFarland. Residents also noted a strong preference to plant more trees within the City as a strategy to reduce air pollution.

Health

At the second community meeting, residents had the chance to indicate their preferred methods to improve health within McFarland. Residents in attendance noted that they would like to see farmers' markets in the City to increase access to fresh produce. Residents also noted that sporting events would be beneficial to improving social interactions within McFarland. In addition, community members noted their preference for primary care facilities,

clinics, and family planning medical facilities in the City. Residents also indicated a preference for mental health clinics as a medical service for the City.

Environmental Justice

In the second community meeting, residents indicated a preference for more community activities to encourage physical activity amongst community members. Residents also noted that they were most concerned with air pollution caused by dust generated by agricultural uses. In addition, transportation-generated air pollution was a major cause of air pollution. Community members indicated a preference for access to farmer's markets and more grocery stores that stock fresh produce to promote healthy food choices for residents. Residents noted a preference for youth sports and recreation programs to promote a sense of community within McFarland.

Noise

In the second community meeting, residents were asked to give their opinions in relation to noise concerns within the City. Community members noted that Highway 99 and the railroad were sources of noise-related annoyance that bothered residents. A few community members stated that noise bothered them daily, but there was a wide range of responses including multiple community members who said noise never or almost never bothered them. When residents were asked what sections of McFarland were most affected by noise, residents noted that the areas closer to Highway 99 and the railroad were locations where noise annoyed them.

Community Design

The second community meeting gave those in attendance a set of questions so they could share their preferences on various community design related preferences to improve McFarland. Questions covered topics that included streetscape improvements, architectural styles that appealed to residents, and improvements to downtown. Residents noted a preference for improved pedestrian access on streets. A preference for modern or contemporary architecture for building construction was also noted. Community members in attendance also stated that trash cans, lighting, and increased landscaping were desired improvements for commercial areas within the City. For improvements to downtown, residents indicated that public spaces, plazas, pocket parks, and complete streets would be ideal to enhance community design.

Public Facilities

In the second community meeting, community members were given a set of questions so they could share their preferences and issues related to public facilities within McFarland. When residents were asked which public services or facilities they wanted to see improved, community members noted that they wanted police services to see improvement. After-school programs for kids and senior centers and activities were noted as the preferred choice for improvements to community services within the City. Infrastructure needs noted more streetlights, better maintained streets, and improved sidewalks within the City. When residents

were asked questions related to personal safety, community members noted they felt safest in the southwestern section of McFarland. In contrast, residents felt the least safe in the eastern section of McFarland.

Sustainable Agriculture

During the second community meeting, residents noted that they were most concerned with air pollution caused by dust generated by agricultural uses. Community members also indicated a preference for access to farmer's markets.

2.3.3.6 Community Meeting 3: Future Alternatives

Date: Thursday, February 19, 2020

At the third community meeting, the planning team presented three growth alternatives. These alternatives were designed with contrasting visions of the future to facilitate discussion with stakeholders. The three alternatives included Business as Usual, Moderate Growth and Redevelopment, and Smart Growth.

Each alternative provided a conceptual land use map, proposed circulation options, representative photos, and three-dimensional building massing models. This information was presented in a before/after format to showcase the potential physical impacts of each growth alternative.

The alternatives were presented with the following growth assumptions:

Business as Usual

- Auto-oriented development
- Low-density residential as the dominant housing type
- Commercial along Highway 99
- Light and heavy industrial uses

Moderate Growth and Redevelopment

- Residential infill development
- Accessory dwelling units as a residential option
- Expanded bus services
- Complete streets
- Increased commercial and full-service grocery stores
- 3-story height limit to maintain McFarland's small-town character

Smart Growth

- Maximizing housing, retail, mixed use, and industrial growth to match the highest jobs to labor force ratio recorded for McFarland
- Residential development focused in Downtown and on the Westside

- Land use distribution that provides mixed-use commercial for service jobs, light industrial to accommodate office and studio uses, heavy industrial to provide high paying manufacturing jobs, and highway commercial to create sales tax-generating services along Highway 99
- Expanding public transit with a new internal circulatory transit network to link with the existing regional transit system; developing bicycle and pedestrian infrastructure to link homes, schools, and parks; improving non-motorized crossings to provide better transition and connection between East and West sides of the City.

The following section outlines the results from the survey completed by community member at the February 19th meeting:

For the Business as Usual Alternative, community feedback indicated that:

- 95.8% of participants liked low-density residential uses in McFarland
- 65.2% of participants liked auto-oriented uses
- 100.0% of participants liked commercial development along Highway 99
- 54.2% of participants liked light and heavy industry uses in the City
- 54.2% of participants liked loss of open space and agriculture
- 83.3% of participants disliked development in the floodplains
- 57.7% of participants liked residential development near industrial uses
- 88.0% of participants disliked limited walkability and connectivity

For the Moderate Growth and Redevelopment Alternative, community feedback indicated that:

- 83.3% of participants liked mixed density housing
- 87.5% of participants liked mixed-use development for commercial and housing
- 72.0% of participants liked accessory dwelling units for residential infill
- 95.8% of participants liked highway commercial development
- 100.0% of participants liked improved sidewalk and bicycle connections
- 95.7 of participants liked expanded bus connections within the City
- 83.3% of participants liked infill development on vacant and underutilized land
- 87.0% of participants liked increased density
- 95.2% of participants liked downtown redevelopment
- 72.7% of participants liked more affordable housing options
- 94.7% of participants liked improved connectivity
- 90.0% of participants liked more public transportation options

For the Smart Growth Alternative, community feedback indicated that:

- 93.1% of participants liked downtown infill development
- 90.0% of participants liked westside residential expansion

- 96.7% of participants liked development along Highway 99
- 86.2% of participants liked gateways to the City using signs
- 100.0% of participants liked walkable corridors with widened sidewalks, benches, and landscaping
- 82.8% of participants liked separated bike lanes
- 89.7% of participants liked extended pedestrian and bike barriers along highway crossings
- 82.1% of participants liked intra-city bus service
- 92.9% of participants liked additional bus stops for Kern Transit route
- 70.4% of participants liked increased housing density
- 100.0% of participants liked increased job opportunities along Highway 99
- 92.9% of participants liked a vibrant downtown
- 70.4% of participants liked mixed-use in downtown
- 77.8% of participants liked identified gateways
- 96.4% of participants liked safe streets for all road users

In summary, attendees at the third meeting expressed a desire for McFarland to continue evolving with more active transportation infrastructure, more housing, and more commercial development along Highway 99. Residents were accepting of infill development on vacant land, and accessory dwelling units were welcomed as an opportunity to build more affordable housing. Residents accepted mixed-use structures in downtown but little desire for continuation of auto-oriented development.

2.3.3.7 Community Meeting 4: Presentation of Preferred Growth Alternative

Date: Wednesday, March 11, 2020

On March 11, 2020, the fourth community meeting was held to review and verify that the Preferred Growth Alternative captured the preferences of the community. The meeting consisted of a presentation on the Preferred Growth Alternative, a plan for future development created through the combination of feedback from the previous three community meetings and the most preferred features of the three development alternatives presented in Meeting 3. The presentation was followed by a feedback session and activity to check whether the Preferred Alternative adequately captured the vision and aspirations of McFarland residents. Participants viewed posters that gave them information about the concepts presented while they engaged in the verification process.

Feedback

The community provided feedback by filling out worksheets to confirm whether the planning team correctly captured their likes and dislikes regarding City-wide, Land Use, and Circulation features of the Preferred Growth Alternative. Results were largely positive, confirming that the Preferred Growth Alternative largely captured the community aspirations and preferences for the future.

For the community-wide features of the Preferred Growth Alternative, community feedback indicated that:

- 100.0% of participants liked concentrating development to the west to avoid flood areas
- 85.7% of participants liked to preserve open space and agricultural land
- 100.0% of participants liked City gateways with signs, landscaping, and iconic features
- 92.9% of participants liked to prioritize infill development for housing
- 92.9% of participants liked to redevelop downtown
- 92.9% of participants liked a vibrant downtown
- 100.0% of participants liked mixed-use in downtown and commercial corridors
- 100.0% of participants liked increased job opportunities along Highway 99

For the Land Use features of the Preferred Alternative, community feedback indicated that:

- 100.0% of participants liked a revitalized downtown with mixed-use on vacant and underutilized land
- 100.0% of participants liked North & West Expansion for clustered low, medium, & high-density housing
- 92.3% of participants liked Whisler Road Expansion for mixed-density residential development with connection to commercial uses
- 100.0% of participants liked Southern Commercial Corridor with widened sidewalks, crosswalks & commercial uses
- 92.3% of participants liked Famoso industrial & Commercial Center for the creation of light and heavy industrial & highway commercial centers
- 100.0% of participants liked Southern Neighborhood Commercial for the creation of retail center for the Eastern Neighborhood

For the Circulation features of the Preferred Alternative, community feedback indicated that:

- 100.0% of participants liked inner city bus service
- 100.0% of participants liked new bus stops for Kern Transit at major centers along Highway 99
- 100.0% of participants liked expanded sidewalks along major pedestrian corridors
- 100.0% of participants liked marked bike lanes along major arterials for complete streets
- 100.0% of participants liked improved pedestrian & bike corridor connecting West
- 91.7% of participants liked extended pedestrian & bicyclist barriers for safety on Highway 99 crossings
- 100.0% of participants liked safe streets for all road users

3. CONDITIONS AND FACTORS FOR GROWTH

3.1 Introduction

This chapter addresses the conditions and factors that influence future growth in the City of McFarland. Background research for this chapter consisted of fieldwork, data analysis, and community input. This chapter also presents projections for population growth, job targets, and related housing needs. These projections inform the three development alternatives and the Preferred Growth Alternative.

3.2 Existing Strengths & Challenges

3.2.1 Community Strengths

History and Culture

McFarland residents possess great pride in their history and culture, as reflected in public art and murals. McFarland has a particularly robust youth sports culture, as the City is known for its high school cross-country team's state championships.

Connections

McFarland has multiple entry and exit ramps connecting to Highway 99, a major north-south route linking McFarland to other Central Valley cities, including Bakersfield, Fresno, and Sacramento. A major north-south railroad traverses McFarland, and Burlington Northern Santa Fe (BNSF) Railroad has made inquiries about constructing a new terminal in McFarland that would be an opportunity to enhance local economic growth.

Parks

There are 35 acres of parks available to McFarland residents within City limits. While the ratio of parks to residents could be improved, McFarland's ratio is higher than the national parks-to-residents average and higher than the ratios of some of the other San Joaquin Valley cities.

Small-Town Feel

The relatively small population, low-density housing, and agricultural context create a rural character for McFarland. Residents support each other and relish the small-town feel. McFarland's downtown is small and walkable, and the area surrounding the City is almost entirely agricultural fields, adding to the City's quiet, rural atmosphere.

Quantity of Land

McFarland's recent annexation and proposed Sphere of Influence provide enough land to accommodate the City's projected population growth and aspirations for economic expansion.

Farmland

Much of the land in McFarland's Sphere of Influence is prime agricultural land.

3.2.2 Community Challenges

Jobs & Economic Diversity

McFarland's jobs are predominantly agricultural and predominantly low-paying, with a significant amount of local jobs being seasonal. McFarland's median household income is 70% that of Kern County and just 52% of California's. Additionally, McFarland's 2017 unemployment rate of 14.2% was significantly higher than Kern County's 10.7% and California's 7%.

Housing

Almost half of McFarland residents were overburdened by housing costs, spending more than 30% of their incomes on housing.

Goods and Services

McFarland possesses limited outlets for goods and services, such as grocery stores and convenience stores, particularly on the eastern side. As a result, residents often travel to Delano or Bakersfield to access needed supplies and services.

Medical Services

Feedback from the community identified a need for more comprehensive medical services within McFarland. McFarland's medical services are limited to two clinics operating in the City and no emergency room.

Police

The existing ratio of 11 police officers to 15,000 residents is below the recommended ratio for community policing. Feedback from community meetings has indicated difficulties in funding adequate police services.

Pollution

The San Joaquin Valley Air Basin, which McFarland is a part of, is one of the most polluted air basins in California and is not in attainment for both federal and state regulatory standards for particulate matter and ozone. As a result, asthma rates in McFarland are in the 67th percentile in California.

Flooding

Significant portions of McFarland, particularly eastern McFarland, are in a flood plain. Existing mitigation measures are insufficient to prevent roads and buildings from flooding, which is expected to intensify with climate change.

Climate Change

Ongoing climate change places McFarland at risk from drought and extreme heat. Climate change is expected to worsen the effects of these hazards and adversely impact agricultural production and McFarland's population health.

Transportation

Highway 99 creates a significant physical barrier between the east and west sides of McFarland, and the City has limited pedestrian and bicycle facilities. Furthermore, McFarland does not have an intra-city bus service, although there is one stop for the regional bus service at the McFarland Veterans Community Center.

3.3 Growth Projections for 2040

This section describes the population, employment, and housing projections that have informed the development of the McFarland General Plan update. These projections also serve as the basis for all growth alternatives.

3.3.1 Population Projections

McFarland's population is projected to grow 82% from 2015 to 2040. The 2040 population for the City of McFarland was projected using the cohort component method, which applied local birth, death, and migration rates to generate forecasts in five-year increments for each age and sex cohort. Based on these projections, McFarland's total population is estimated to increase to 23,690 people by 2040 under baseline conditions, as shown in Table 3-1.

Table 3-1: Population Projections for McFarland, 2015-2040

Year	Total Population
2015	13,020
2020	14,755
2025	16,661
2030	18,770
2035	21,121
2040	23,690

Source: Cal Poly Planning Team, 2020

In addition to a significant population increase, the 2040 projections also show significant changes to cohort characteristics, as depicted in the 2017 census and projected 2040 population pyramids in Figures 3-1 and 3-2 respectively.

The growth in the upper age cohorts illustrates the expected increase in the City of McFarland's senior population. The cohort data from the 2017 American Community Survey indicates a pyramid shape, with larger percentages of younger residents in McFarland and lower percentages of older residents. In comparison, projections for 2040 show a more cylindrical shape, indicating a more even distribution of age groups within the population in the future.

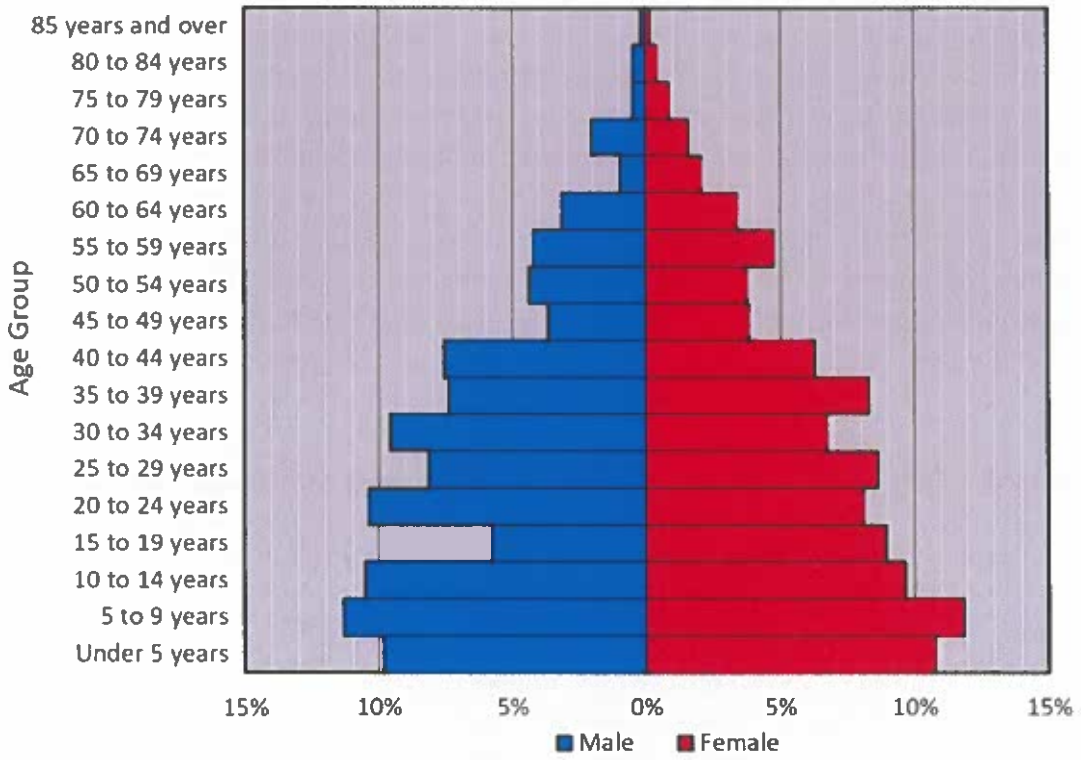


Figure 3-1: 2017 population pyramid for McFarland.

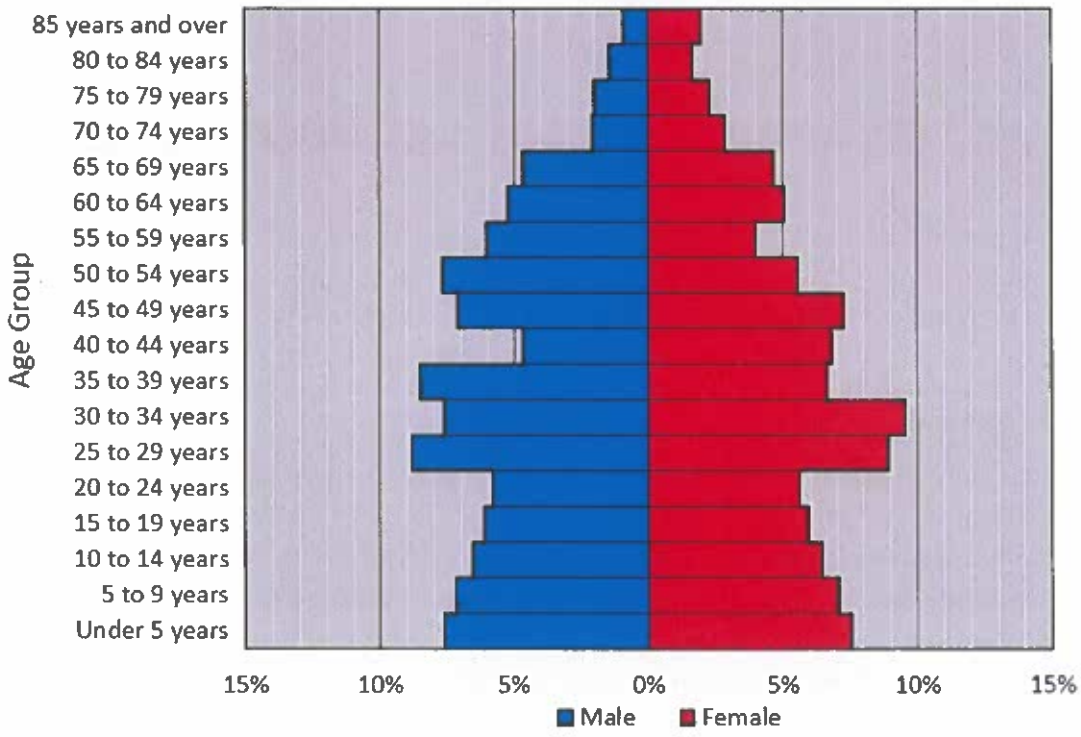


Figure 3-2: 2040 baseline population pyramid for McFarland.

3.3.2 Housing Projections

The City of McFarland's housing stock as of 2017 was 3,080 housing units. By 2040, the City will need an additional 4,500 housing units to accommodate projected population growth for a total housing stock of 7,580 housing units under baseline conditions. This housing need was calculated using the head of household formation method (or headship method). This method calculates the percentages of people who were heads of household within each age cohort in a base year. These percentages are then multiplied by the projected population for respective age cohorts to determine the total number of potential households which converts to number of housing units needed. Table 3-2 shows the distribution of households by age of head of householder and by tenure for the 2017 census data as well as projected households for 2040.

Table 3-2: McFarland Headship Projections for Housing Units Needed, 2017-2040

Age	2017					2040			
	Pop.	Owner Households		Renter Households		Projected Pop.	Households	Owner	Renter
		Number	Percent of Age Group	Number	Percent of Age Group				
15 - 24	2,306	16	1%	85	4%	2,787	122	19	103
25 - 34	2,320	346	15%	451	19%	4,108	1,411	613	799
35 - 44	2,062	296	14%	412	20%	3,150	1,081	452	629
45 - 54	1,090	404	37%	143	13%	3,302	1,657	1,224	433
55 - 64	1,072	343	32%	140	13%	2,430	1,095	778	317
65 - 74	454	246	54%	27	6%	1,677	1,008	909	100
75 - 84	152	75	49%	15	10%	872	516	430	86
85+	23	23	100%	0	0%	330	330	330	0
Total	9,480	1,749	18%	1,273	13%	18,656	7,220	4,755	2,465

Source: U.S. Census Bureau; 2017 American Community Survey Table B25007 5-Year Estimates

To accommodate vacancies, the housing projections assumed 5% of all housing units would remain vacant. About 3% of housing units in McFarland were vacant in 2019, a little lower than the 5% assumption. Factoring in the 5% vacancy rate to the projected 7,220 households, the projected baseline housing need in McFarland is 7,580 total housing units by 2040.

Housing Affordability

Housing is considered affordable when total housing costs are less than 30% of a household's monthly income, according to the U.S. Department of Housing and Urban Development (HUD). As part of the housing projection process, McFarland's affordable housing need for 2040 is projected based on 2017 household income data, which multiplied the projected number of householders in each age cohort (seen in Table 3-2) by the percentage of households paying greater than 30% of their income on housing. Based on these affordable housing projections, the City should plan to develop 2,450 new affordable housing units by 2040 to accommodate projected population growth under baseline conditions.

3.3.3 Economic Projections

In 2017, there were 6,745 jobs in the City of McFarland, the majority of which (about 80%) were agricultural jobs. Based on McFarland's jobs to labor force ratio data from 2013 to 2017, together with 2040 population projections, the City's target for job growth is 5,090 more jobs by 2040, increasing the City's total number of jobs to 11,835. This job growth is reflected in the projections of the Business as Usual Alternative. The jobs to labor force ratios are based on economic data from the United State Census and retrieved from the Longitudinal Employer Household Dynamics (LEHD) database.

The following are descriptions of the industries within each sector according to the Census:

- **Agriculture** - Agriculture, Forestry, Fishing, and Hunting
- **Service** - Administration & Support; Waste Management and Remediation; Educational Services; Health Care and Social Assistance; Arts, Entertainment, and Recreation; Accommodation and Food Services; Other Services (excluding Public Administration)
- **Retail** - Wholesale Trade; Retail Trade
- **Office** - Information; Finance and Insurance; Real Estate and Rental and Leasing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; Public Administration
- **Industrial** - Mining, Quarrying, and Oil and Gas Extraction; Utilities; Construction; Manufacturing; Transportation and Warehousing

Job Targets for Growth Alternatives

The job targets for all growth alternatives were based on historic jobs to labor force ratios from 2013 to 2017 for McFarland. The City's labor force is defined as the population between the ages of 16 and 65. Those younger than 16 were assumed to be too young to work and those who were 65 and above were assumed to be retired. Table 3-3 shows the labor force population, jobs within the City, and associated jobs-to-labor force ratios. The City depicted a low ratio of 0.86, an average of 1.0, and a high of 1.25

Table 3-3: McFarland Jobs to Labor Force Ratios, 2013-2017

Year	Jobs	Labor Force	Ratio (Jobs/Labor Force)
2013	4,662	4,931	0.95
2014	4,441	5,167	0.86
2015	5,296	5,111	1.04
2016	5,514	5,210	1.06
2017	6,743	5,399	1.25
Average			1.03

Source: Cal Poly Planning Team, 2020

Table 3-4 compares the average jobs-to-labor force ratios of the City of McFarland, the neighboring City of Delano, Kern County, and the State of California. This provided context

within which to set realistic job targets for various alternatives. Over the period, MacFarland exhibited a higher average ratio compared to the other jurisdictions. For scenario planning therefore, the Business as Usual Alternative applied the low ratio of 0.9, the Moderate Growth Alternative applied the average of 1.0, and the Smart Growth Alternative applied the high ratio of 1.25.

Table 3-4: Average Job to Labor Force Ratio

Geographic Area	Average Jobs to Labor Force Ratio, 2013-2017
City of McFarland	1.03
City of Delano	0.79
Kern County	0.75
State of California	0.83

Source: Longitudinal Employer Household Dynamics (LEHD) OnTheMap 2013-2017

The Preferred Growth Alternative also used the aggressive jobs-to-labor force ratio of 1.25 for the City of McFarland matching the highest historic ratio that McFarland had in 2017, as shown in Table 3-3. This suggested a target of 17,195 total jobs by 2040.

Using economic base methods of analysis, higher numbers of jobs than those under baseline conditions were converted to additional population and housing needs. Appendix 5 shows comparative details on population, housing, and jobs with associated needs for development space for the various growth scenarios.

3.4 Development Opportunities and Constraints

3.4.1 Boundaries and Limits

The City of McFarland does not border any other cities, but borders agricultural lands on all sides, including Williamson Act lands. These natural obstructions and land use restrictions present barriers to outward growth. In addition, Highway 99 divides McFarland into western and eastern sides, which restricts active transportation movement across the highway. The City's Sphere of Influence (SOI) extends well beyond the City limits in most directions. The Local Agency Formation Commission (LAFCO) is responsible for approving a SOI and the City has been in discussions with LAFCO to expand its SOI. Map 3-1 shows boundaries of the incorporated area, previous SOI, and the proposed SOI to meet the City's aspirations for economic expansion.

3.4.2 Opportunities

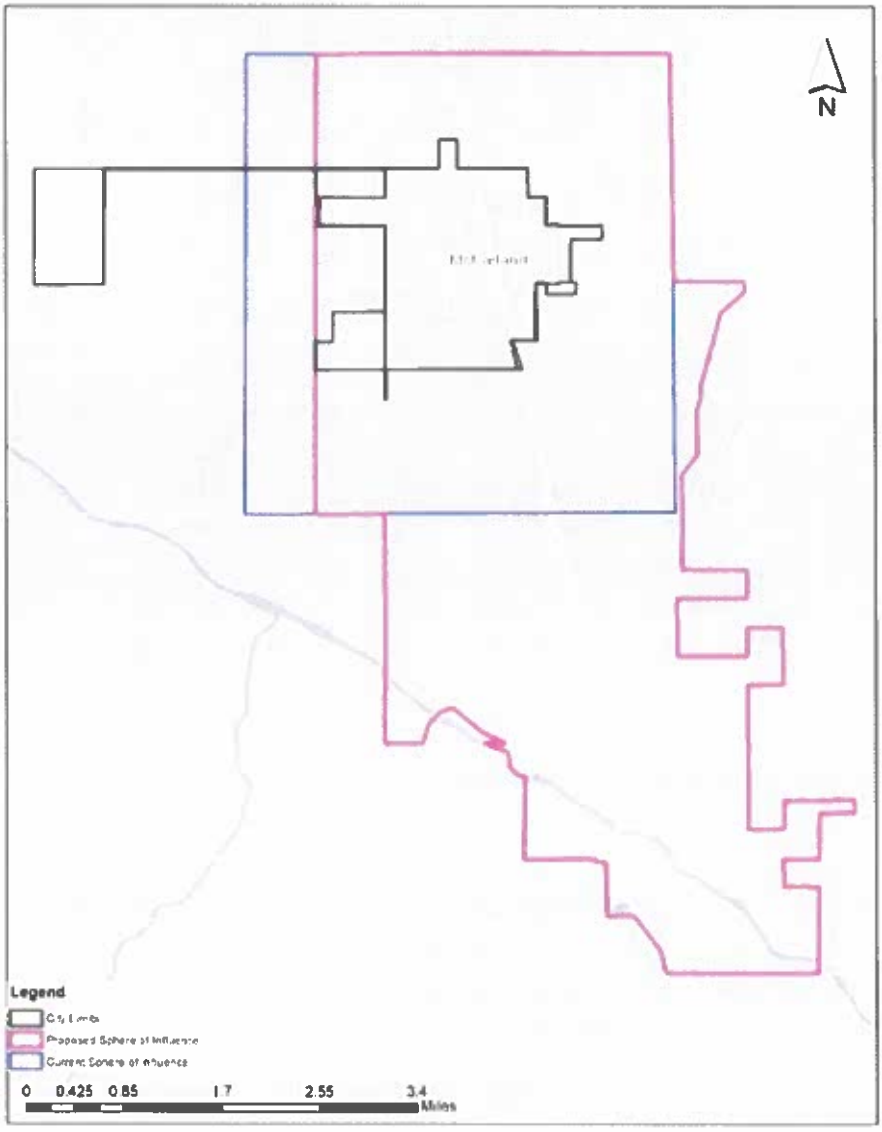
The planning team created an Opportunities map based on building coverage, vacant parcels, and potential for Accessory Dwelling Units (ADUs). This process identified key parcels and areas within the City of McFarland that could accommodate some of the future growth in housing.

The Opportunities map (Map 3-2) shows areas of opportunity within the existing City boundaries. Parcels with opportunity include vacant and underutilized parcels that could accommodate additional development. Vacant parcels are highlighted in bright pink and are concentrated largely in the North & Western part of the City and along the railroad on the east

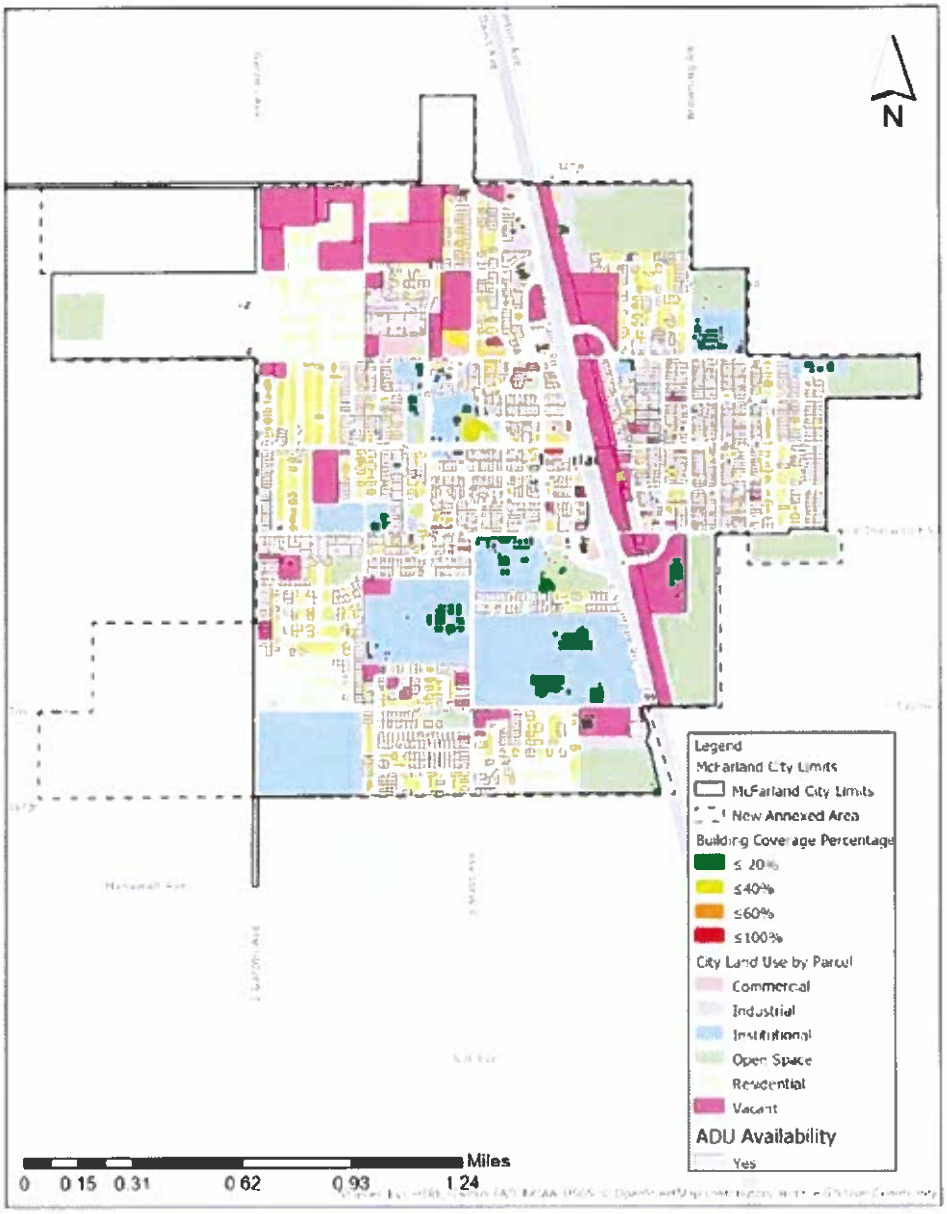
side. The 2019 land use inventory identified 77 vacant parcels within City limits, totaling approximately 77 acres.

This map also shows parcels where ADUs could be built to increase housing supply in the City and create smaller, more affordable units for single people or elderly family members. GIS data of building footprints and parcel sizes was used to calculate how much land was available on each parcel and whether an ADU could fit on the parcel. This analysis revealed the potential for approximately 1,300 ADUs. Much of this data was gathered in October 2019 during the land use inventory before City boundaries were expanded on the west in February 2020.

Map 3-1: McFarland's Sphere of Influence (SOI)



Map 3-2: Opportunities within McFarland

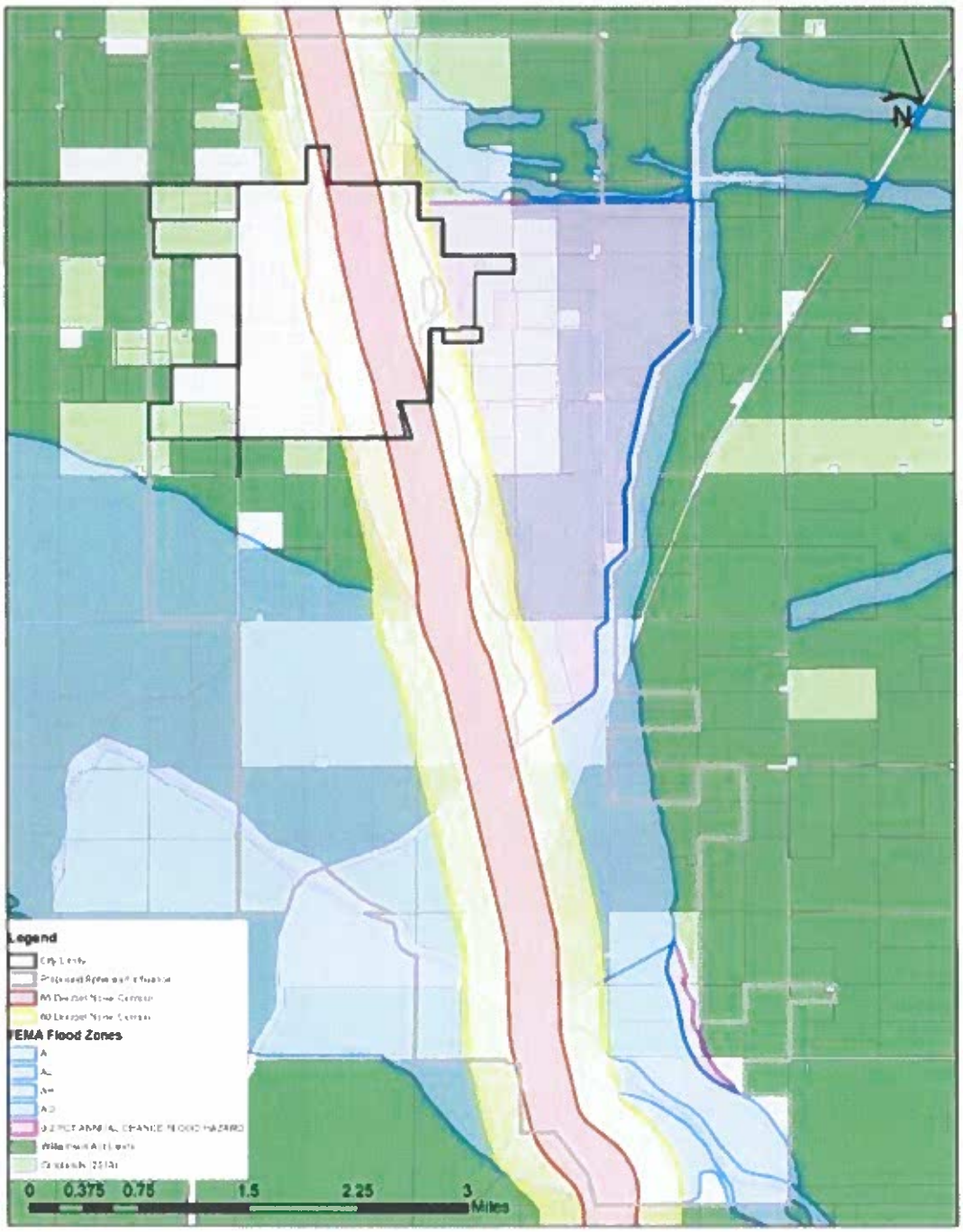


3.4.3 Constraints

Constraints to development include both natural hazards and man-made obstacles. These areas would not be prime candidates for development or redevelopment due to their sensitive environmental or historical nature. Nevertheless, some constraints can be mitigated during development through best management practices.

The planning team created Constraints maps based on environmental resources, natural and manmade hazards, and restricted land uses to identify where future growth could be accommodated. Map 3-3 depicts constraints to future development in McFarland.

Map 3-3: Constraints within and around McFarland



The primary producers of noise in McFarland include Highway 99 and the railroad that runs parallel to the freeway. The 65 dB noise contour along this corridor is unsuitable for sensitive

receptors, such as residential areas and schools, and the 60 dB contour requires mitigation measures to construct development that includes sensitive receptors.

McFarland also contains both 100-year flood plains and 500-year flood plains as designated by the Federal Emergency Management Agency (FEMA). Flood hazards present a risk to life and property and will need to be mitigated in future development.

Additionally, the City is nearly surrounded by croplands and Williamson Act lands, which limit development with the intention of preserving prime farmland. Otherwise, the regional geography poses low fire risk to McFarland, and lacks wetlands, forested areas, or other sensitive habitat that might hinder development.

3.5 References

U.S. Census Bureau; 2017 Census of Population and Housing, Age and Sex; McFarland, Kern County, and California; American Community Survey 5 Year Estimates, Table S0101; Retrieved October 11, 2019 fromhttps://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

U.S. Census Bureau; 2017 Census of Population and Housing, OnTheMap; McFarland, Delano, & Kern County, California; Retrieved October 11, 2019 from https://lehd.ces.census.gov/

U.S. Census Bureau, American Community Survey (ACS). (2017). Table B25007 Tenure by Age of Householder, 5-Year Estimates: McFarland, CA.

4. DEVELOPMENT ALTERNATIVES

4.1 Introduction

This chapter presents three alternatives for accommodating future population, housing, and employment needs in McFarland through 2040. Each alternative varies by development densities, intensities, types, and locations of growth throughout the City to meet three distinct visions and sets of growth assumptions.

The Business as Usual Alternative assumes future growth will continue based on historic trends in land use patterns, housing types and density, and employment opportunities and locations. It includes the expansion of the City and its Sphere of Influence (SOI) to the south. In this alternative, residential development remains primarily low-density with agricultural land converting to new commercial and industrial development along Highway 99. The transportation system remains automobile oriented.

The Moderate Growth and Redevelopment Alternative selects multiple areas to concentrate new growth within the existing City boundary with the option to expand through annexation as needed. The alternative's governing principles include infill development, densification, and repurposing, and it prioritizes improving circulation connections between the areas east and west of Highway 99 and developing complete streets to increase walkability, bike ability, and streetscape beautification. Pedestrian bridge improvements, bus network expansion, and the development of attractive gateways into McFarland are also key features of this alternative.

The Smart Growth Alternative accounts for the most aggressive population growth for the City of McFarland, maximizing infill within the City and new development outside of the existing City boundary to accommodate the maximum projected population, housing, and job growth. This alternative identifies three key areas for growth of housing and jobs across the City:

- Downtown Infill
- Westside Expansion
- Highway 99 Improvements

Future growth of housing is concentrated in the Downtown Infill and Westside Expansion key growth areas. Future growth of jobs is focused along Highway 99, where land is designated for light and heavy industrial uses, as well as highway commercial retail and services to support job growth.

4.2. Business as Usual

4.2.1 Introduction

The Business as Usual Alternative continues the existing development patterns of McFarland, based on historic growth patterns and current land use trends. The Business as Usual Alternative involves the expansion of the City and its Sphere of Influence on the south, converting agricultural land to various types of commercial and industrial developments along

Highway 99. Residential, institutional, and other land uses continue to the west and to the east of the Highway 99 corridor. Transportation systems remain automobile-oriented with some improvements for pedestrian connectivity and comfort. Extensive development, including residential development, occurs in 100 and 500-year floodplains, requiring utilities to expand and improve to provide adequate capacity.

Future population growth is projected using the cohort method, which estimates growth based on recent birth, death, and migration rates in the area. This baseline projection then adjusts to account for job growth targets for each alternative. According to the population projections shown in Table 4-1, the City of McFarland's population is expected to increase by 9,760 people from 2017 to 2040, reaching a total population of 23,690 in 2040 under the Business as Usual Alternative.

Table 4-1: Population for each Growth Alternative

	Business as Usual	Redevelopment	Smart Growth
2017 Population	**13,930**	13,930	13,930
2040 Population Projection	**23,690**	27,854	33,219
2017-2040 Projected Population Growth	**9,760**	13,924	19,289

Source: Cal Poly Planning Team, 2020

The population, employment, and housing projections for the Business as Usual Alternative are based on the job-to-labor force ratio of 0.9 taken from McFarland employment data from 2010 to 2017. As seen in Table 4-2, projections from this ratio show a target job increase of 5,090 jobs from 2017 to 2040, with a total of 11,833 jobs in 2040.

Table 4-2: Jobs for each Growth Alternative

	Business as Usual	Redevelopment	Smart Growth
2017 Jobs	**6,743**	6,743	6,743
2040 Job Targets	**11,833**	14,176	17,194
2017-2040 Job Target Growth	**5,090**	7,433	10,451

Source: Cal Poly Planning Team, 2020

To accommodate increased population and employment in the City of McFarland, new residential development is needed. As seen in Table 4-3, under the Business as Usual Alternative, 4,500 new housing units are needed by 2040, increasing the total housing stock to 7,580 housing units.

Table 4-3: Housing for each Growth Alternative

	Business as Usual	Redevelopment	Smart Growth
2017 Housing Stock	**3,080**	3,080	3,080
2040 Housing Projection	**7,580**	8,910	10,630
2017-2040 Projected Housing Growth	**4,500**	5,830	7,550

Source: Cal Poly Planning Team, 2020

4.2.2 Vision

The Business as Usual Alternative maintains McFarland's small-town feel with mostly low-density housing and neighborhood commercial, while also expanding City boundaries to include economically beneficial highway commercial and industrial development.

4.2.3 Growth Assumptions

The assumptions used in the development of this alternative reflect the current housing, commercial, and transportation patterns in existence, as well as the expansion of the City and its SOI to the south. The most predominant housing type in McFarland is low-density single-family homes; therefore, Business as Usual assumes new housing growth will continue a low-density housing pattern in the City's annexation. New industrial and highway commercial activities are centered along Highway 99 between Taylor Avenue and Highway 46.

Growth Assumptions:

- Expand the City and the SOI to the south
- Improve circulation (including for pedestrians), especially around the highway
- Pursue commercial development, especially around the highway
- Improve McFarland's aesthetics and imageability
- Allow for mixed-use development in appropriate areas
- Low-density housing
- Private automobile use remains the dominant mode of travel

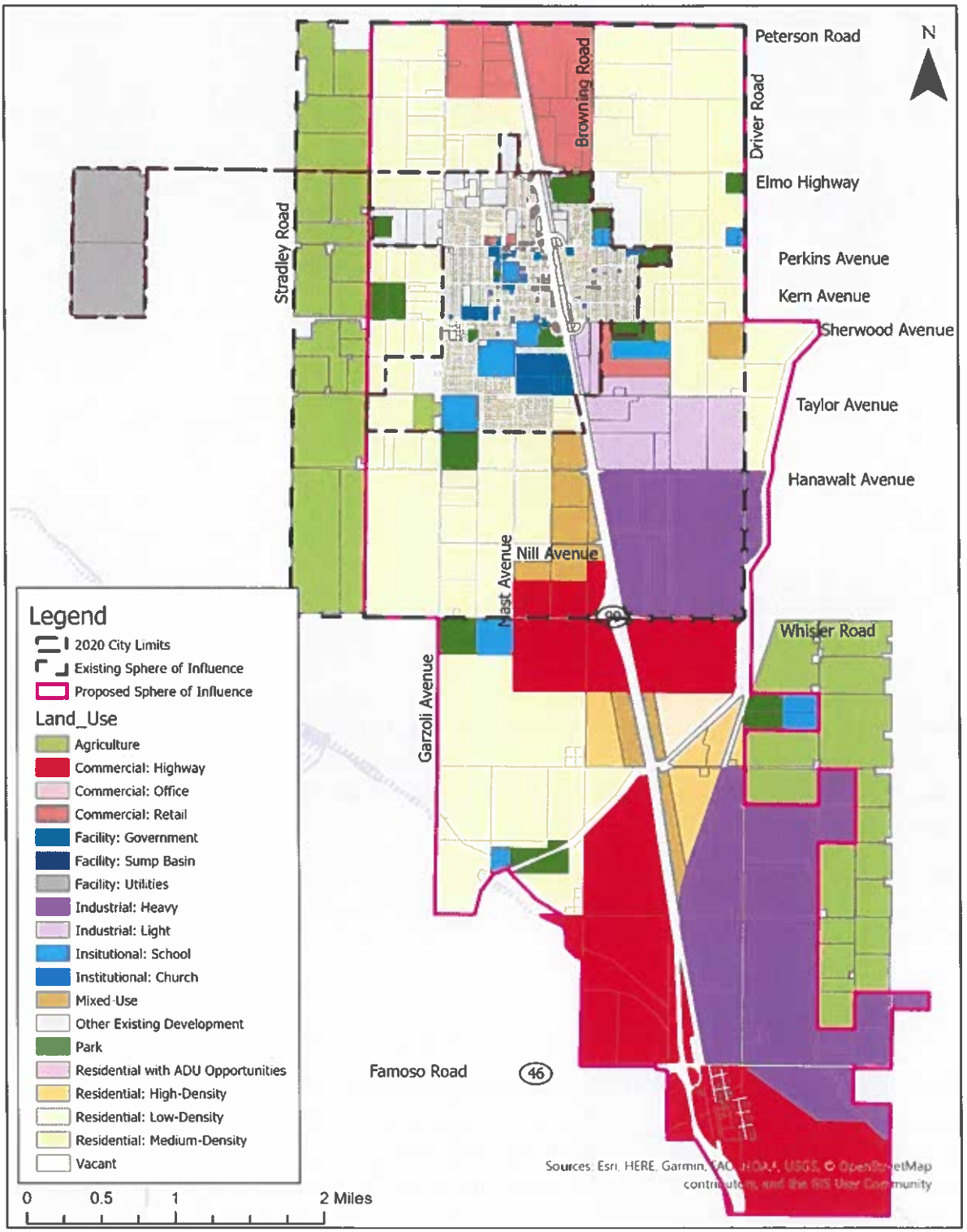
4.2.4 Conceptual Land Use

Under the Business as Usual Alternative, McFarland is projected to need 4,500 new housing units by 2040. Projecting historic growth rates indicates that 810 acres of new residential land and 200 acres of new commercial land are needed by 2040. With the annexation, the City has more land under its control than is needed, making McFarland well-positioned to accommodate future growth, if not overshooting its need just slightly. The spatial distribution of proposed land uses can be seen in Map 4-1.

4.2.5 Residential Land Use

Out of the 810 acres projected for new residential land use, the City is projected to need 770 acres of new single-family development, and 40 acres of new multifamily development. With the new proposed SOI, McFarland will be able to support its projected growth with over 88,000 acres of single family residential, 560 acres of medium density residential, and 9,000 acres of high density residential. Currently, low density makes up most of the housing development in McFarland at 85%, while high density makes up about 15% of residential development. Assuming future housing densities reflect existing density distributions in McFarland, low density will continue to make up the great majority of new housing development, with high density at about 9% and medium density at 1% of new development as Figure 4-1 shows.

Map 4-1: Conceptual Land Use Map for Business as Usual Alternative



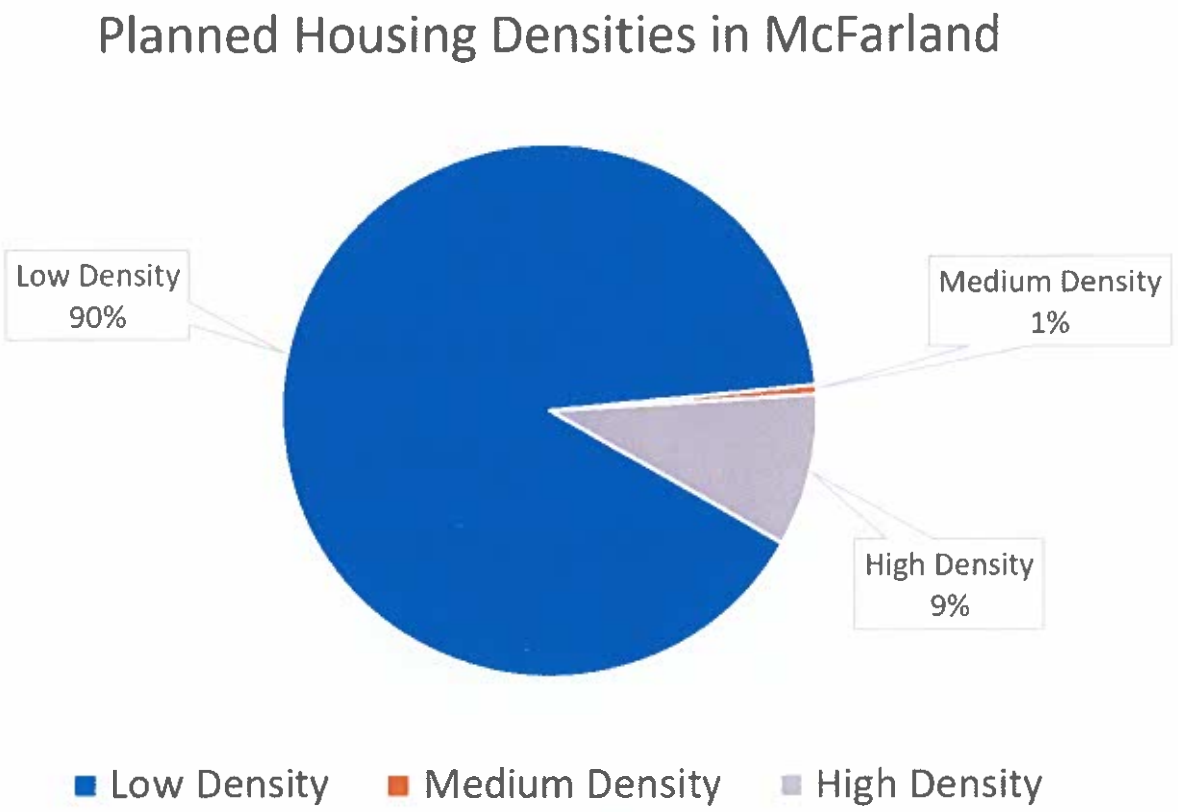


Figure 4-1: Proposed residential densities in Business as Usual Alternative.

4.2.6 Commercial Land Use

As shown in Table 4-4, the total area of commercial and industrial uses within McFarland was 41 acres in 2019, which accounted for the 1,374 jobs in the City. The Business as Usual Alternative projects a need for additional 133 acres for commercial and industrial uses to support 3,551 jobs by 2040.

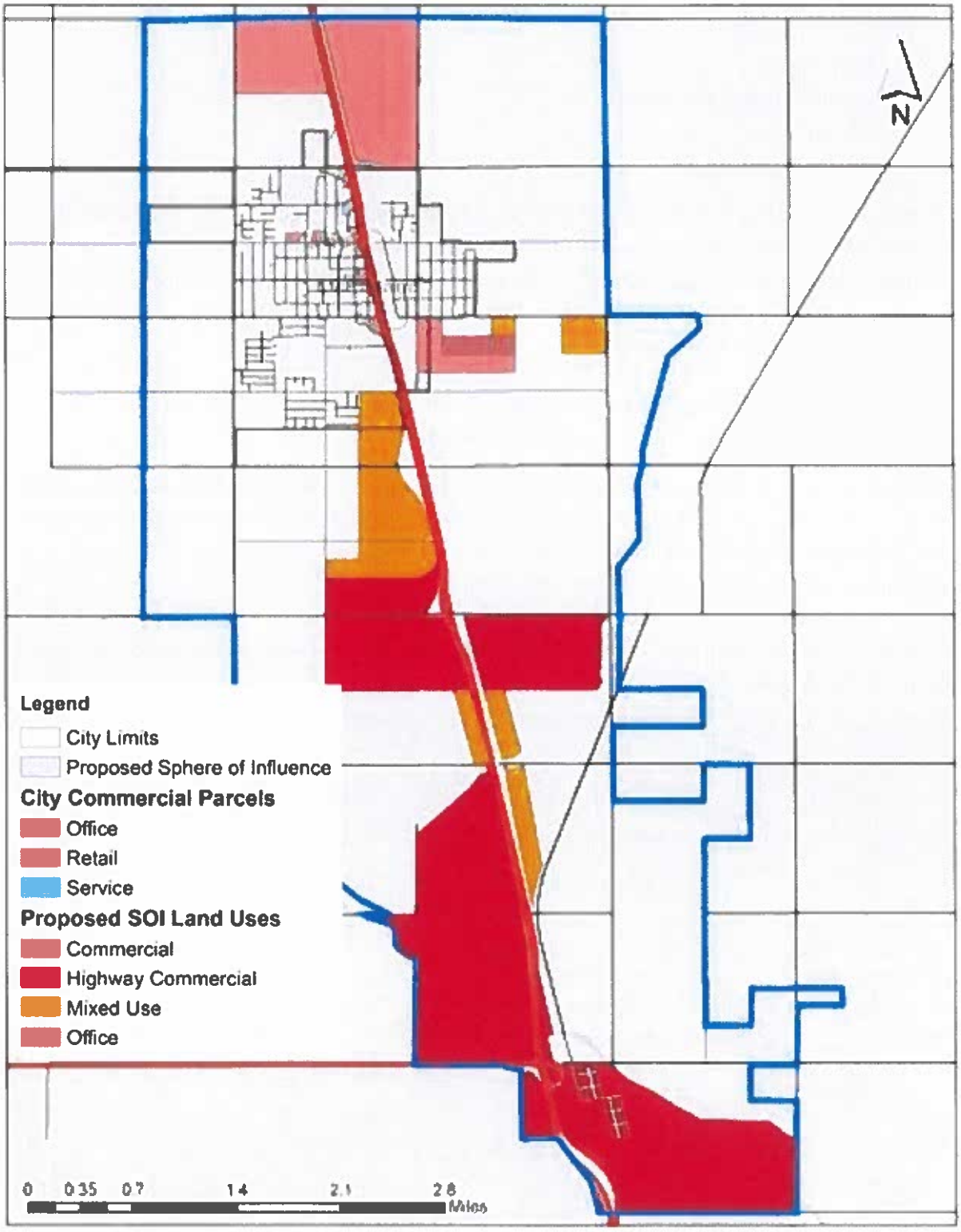
Table 4-4: Commercial Land Use

	2019 Acres	2040 Acres Needed	Available 2040 Acres
Commercial	26	57	2,310
Industrial	15	117	2,520
Total	41	174	4,830

Source: Cal Poly Planning Team, 2020

With McFarland's expansion of its City limits and its Sphere of Influence, the City was projected to have about 2,300 available acres of new commercial land to accommodate future commercial job growth including office, retail, and services. An additional 2,500 acres were designated for industrial uses. Map 4-2 shows the distribution of future commercial land use across the City and its SOI.

Map 4-2: Conceptual Commercial Land Use Map for Business as Usual Alternative



4.2.7 Key Growth Areas

There are four key growth areas in the Business as Usual Alternative:

- Downtown
- East McFarland Extension
- Whisler Road
- Famoso Road

Downtown is the business center of McFarland. East McFarland is primarily residential, and its extension to the south can bring new mixed-use and job opportunities. Whisler Road and Famoso Road transition from agriculture to new commercial and industrial land uses to support job growth and attract new business from Highway 99.

Downtown

Figure 4-2 shows the existing Downtown area, comprised mostly of one- to two-story commercial, institutional, and residential buildings.

Under the Business as Usual Alternative, there are no major changes to the Downtown area in terms of building size, density, or placement. As such, Figure 4-2 represents both the present and the future vision for Downtown. Recent sidewalk improvements, including the new sidewalk project along 2nd Street, and other façade improvements and awning replacements have helped to boost the aesthetics of downtown McFarland. However, additional pedestrian enhancements are still needed to improve safety, particularly around the pedestrian bridge crossing Highway 99.



Figure 4-2: SketchUp model of Downtown McFarland.

East McFarland Extension

Figure 4-3 shows the existing East McFarland Extension area, as viewed from the west. Blanco Park is visible in the center of the image, with Highway 99 and the railroad visible near the bottom. Most of the area is currently used for agriculture.

Figure 4-4 shows the proposed development in the East McFarland Extension area under the Business as Usual Alternative. Significant changes would occur, with agricultural land being converted for industrial use along the highway, new office and commercial to the south of Blanco Park, and mixed-use development to the east of Blanco Park. Additional single-family residential units are prioritized to the north and east of Blanco Park.



Figure 4-3: East McFarland Extension, existing.



Figure 4-4: East McFarland Extension, proposed vision under Business as Usual.

Whisler Road

Whisler Road represents a new opportunity for McFarland to expand its income from highway commercial activities. Currently, the Wine Group, one of the largest exporters of wine in the country and maker of popular Franzia and Cupcake brands, is located along Whisler Road. The land around Whisler Road is primarily agricultural land. Figure 4-5 shows the existing conditions of the area, which is mostly undeveloped agricultural land.

The Business as Usual Alternative proposes new highway commercial, industrial, and mixed uses. Figure 4-6 depicts the future change in land use intended to draw visitors from Highway 99 into McFarland.



Figure 4-5: Whisler Road, existing.

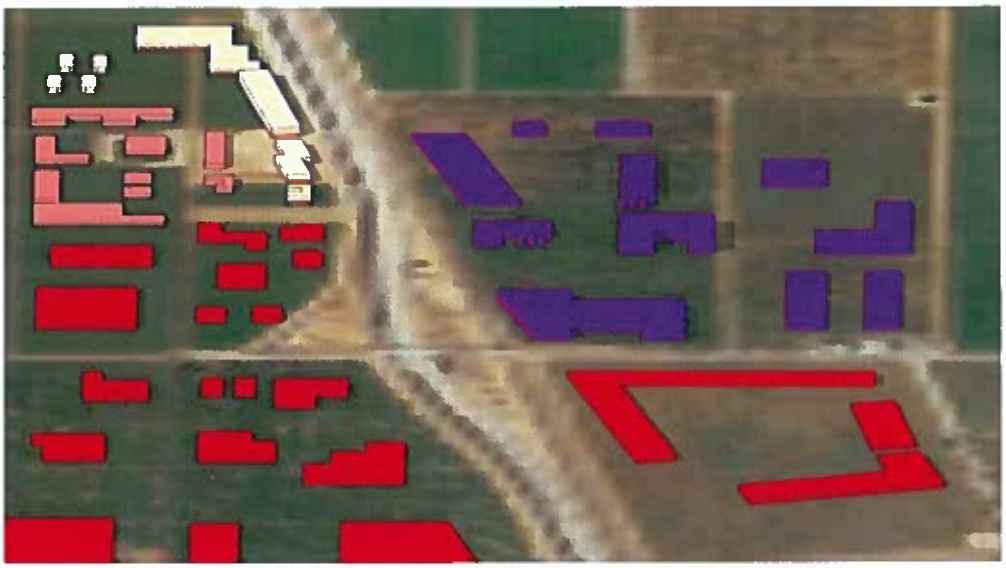


Figure 4-6: Proposed future Whisler Road development.

Famoso Road

The Famoso Speedway is a prominent regional attraction at the intersection of Famoso Road and Highway 46. Although the new sphere of influence does not include the speedway itself, it is a popular regional destination that the Business as Usual Alternative considers in its future development opportunities.

New highway commercial, shown in Figure 4-8, is proposed to support Famoso Raceway and act as an economic driver for the City, building on the limited existing development shown in Figure 4-7. The proposed highway commercial is to include a hotel as another source of City revenue. Adjacent lands on the eastern side of Highway 99 are to serve new heavy industrial activities to support local job growth, as shown in purple.



Figure 4-7: Famoso Road area, existing.

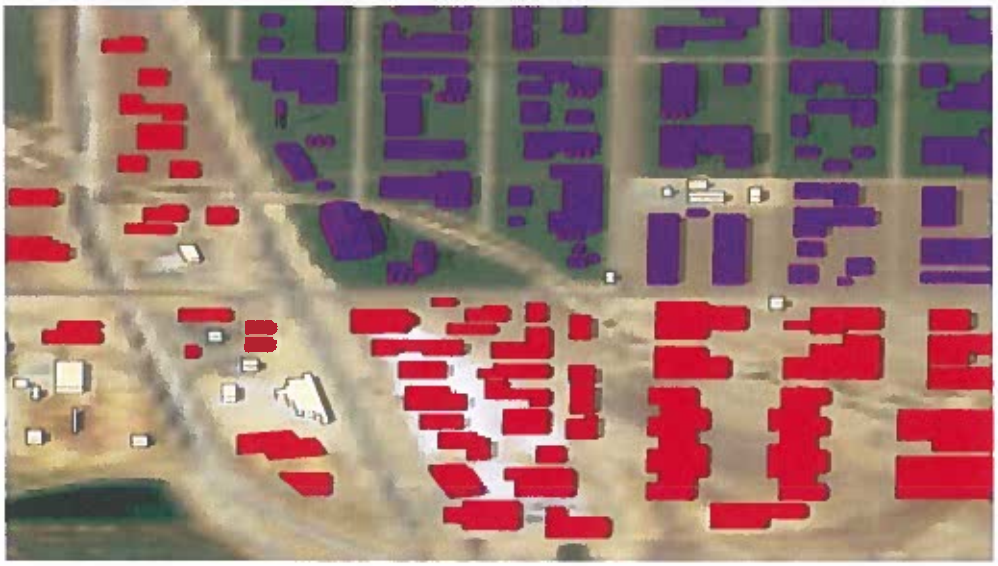
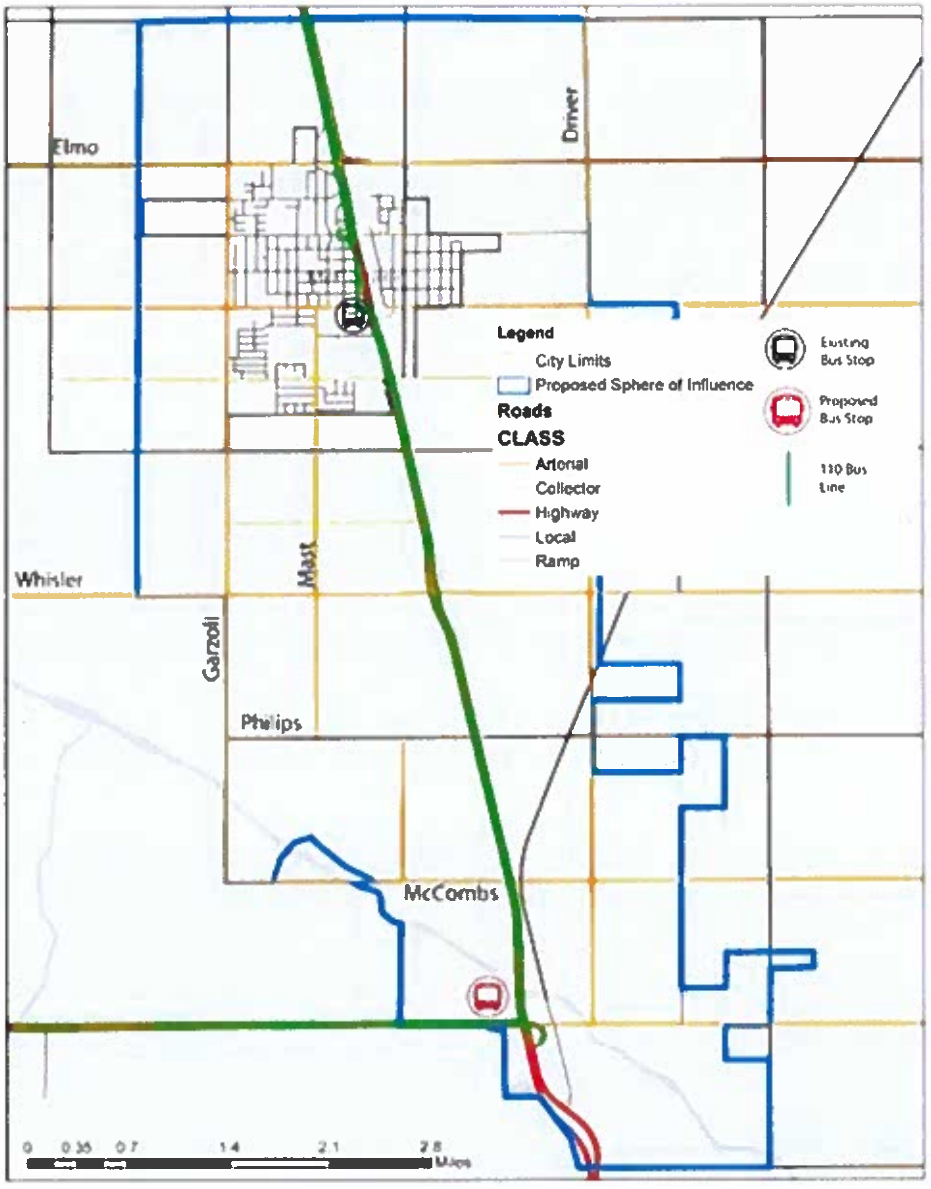


Figure 4-8: Famoso Road, proposed.

4.2.8 Circulation

Since the Business as Usual Alternative follows the present developmental trends of McFarland, there are minimal adjustments to the existing circulation patterns within the City and SOI. This alternative focuses on automobile-oriented transportation and forecasts circulation-related development, accordingly, maintaining the current class of arterial and collector streets and further developing north-south arterial and collector streets including Garzoli Avenue and Mast Avenue. The alternative also proposes new or expanded east-west arterials, including Whisler Road, Philips Road, and McCombs Road to accommodate future development in the southern portion of the proposed SOI.

Map 4-3: Conceptual Circulation Map for Business as Usual Alternative



The Business as Usual Alternative also assumes that there are few changes to public transit or the bicycle and pedestrian network, aside from minor improvements to major corridors and providing safe routes to school. While this alternative does not propose any changes to the alignment of Kern Transit Route 110, it does recommend the addition of one new regional transit stop near the proposed highway commercial area at the intersection of Famoso Road and Highway 46.

4.2.9 Outcomes

Under Business as Usual, significant development would occur on lands that are under agricultural use, impacting open space preservation. Major development would also occur in Federal Emergency Management Agency (FEMA) designated 100- and 500-year flood plains, creating risks to life and property. Residential development would also occur near the highway and heavy industrial areas, presenting air quality and noise issues. Utilities would require major upgrades to provide adequate capacity to serve new development, especially on the east side of the City. Walkability and pedestrian connectivity would also be slightly improved, but still limited.

4.3 Moderate Growth and Redevelopment

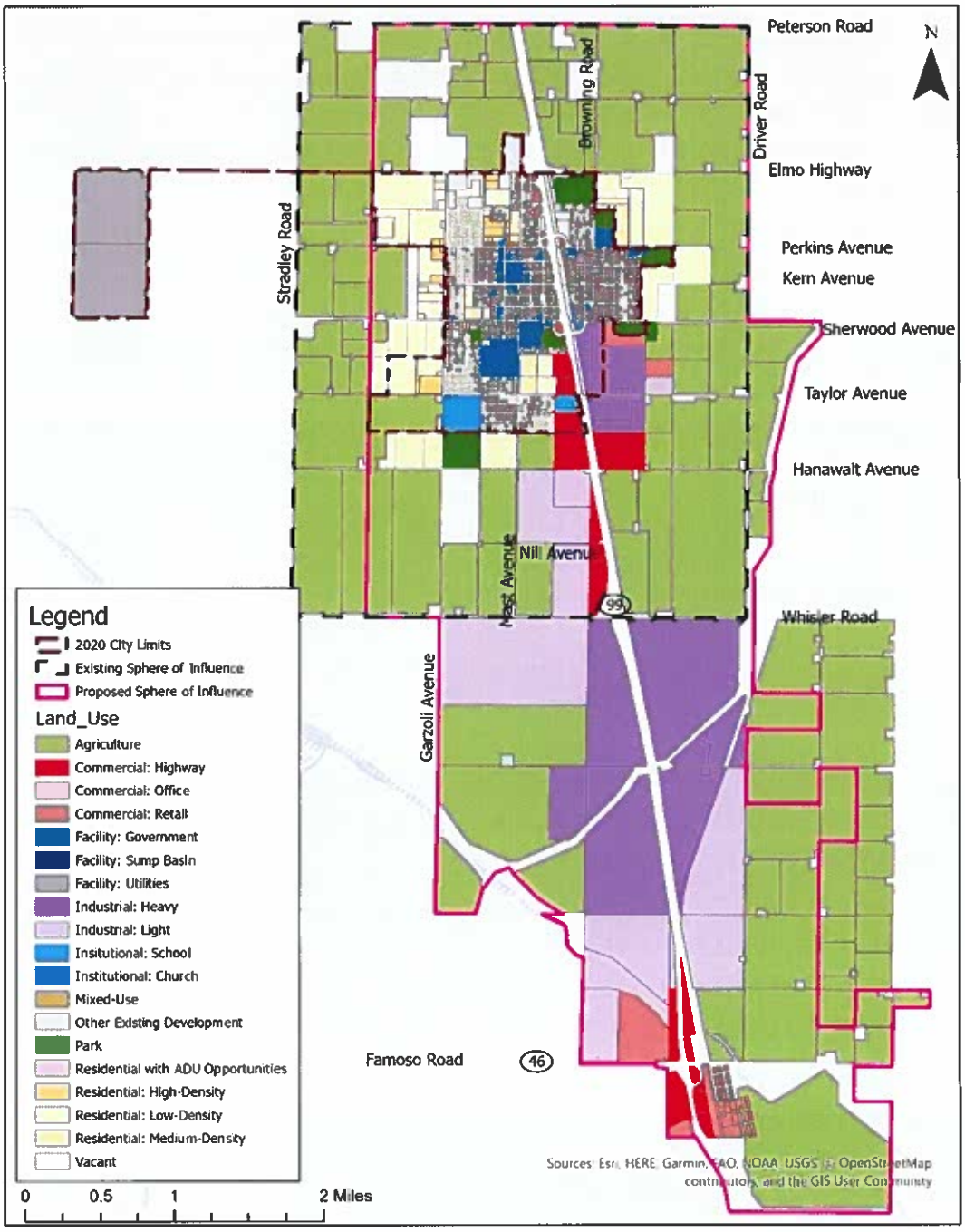
4.3.1 Introduction

The Moderate Growth and Redevelopment Alternative (Redevelopment Alternative) places new construction on sites with pre-existing uses using redevelopment principles such as infill development, densification, and repurposing of land. The Redevelopment Alternative focuses development primarily on underutilized and vacant parcels within the existing City boundary with the option to expand through annexation as needed. Map 4-4 shows the conceptual land use under this scenario.

The Moderate Growth and Redevelopment Alternative envisions maximizing the use of land within City limits and focuses on higher-density compact infill development. The Redevelopment Alternative would increase McFarland's housing and commercial options in four Focus Areas of key growth:

- Downtown along 2nd Street
- Highway 99 corridor
- East side of Highway 99
- Southern Highway Commercial

Map 4-4: Conceptual Land Use Map for Moderate Growth and Redevelopment Alternative



According to the population projections shown in Table 4-5, the City of McFarland's population could increase by 13,924 people from 2017 to 2040 under the Redevelopment Alternative to a total population of 27,854, approximately 4,000 more residents than the Business as Usual Alternative.

Table 4-5: Population for each Growth Alternative			
	Business as Usual	**Redevelopment**	**Smart Growth**
2017 Population	13,930	**13,930**	13,930
2040 Population Projection	23,690	**27,854**	33,219
2017-2040 Projected Population Growth	9,760	**13,924**	19,289
Source: Cal Poly Planning Team, 2020			

The population, employment, and housing projections for the Redevelopment Alternative were based on the average job-to-labor force ratio of 1.0 for the City of McFarland from 2010 to 2017. As seen in Table 4-6, projections based on this ratio show a target job increase of 7,433 jobs from 2017 to 2040, resulting in a total of 14,176 jobs.

Table 4-6: Jobs for each Growth Alternative			
	Business as Usual	**Redevelopment**	**Smart Growth**
2017 Jobs	6,743	**6,743**	6,743
2040 Job Targets	11,833	**14,176**	17,194
2017-2040 Job Target Growth	5,090	**7,433**	10,451
Source: Cal Poly Planning Team, 2020			

To accommodate increased population and employment in the City of McFarland, new residential development would be needed. As seen in Table 4-7, 5,830 new housing units would be needed by 2040 under the Redevelopment Alternative, increasing the housing stock to a total of 8,910 housing units.

Table 4-7: Housing for each Growth Alternative			
	Business as Usual	**Redevelopment**	**Smart Growth**
2017 Housing Stock	3,080	**3,080**	3,080
2040 Housing Projection	7,580	**8,910**	10,630
2017-2040 Projected Housing Growth	4,500	**5,830**	7,550
Source: Cal Poly Planning Team, 2020			

4.3.2 Vision

The Redevelopment Alternative envisions a compact community that maximizes the use of land within City limits. It focuses development primarily on underutilized and vacant parcels to promote access to jobs, retail, services, and recreation. This alternative distinguishes itself from the other two alternatives by focusing on compact development and opportunities for accessory dwelling unit (ADU) within a concentrated area.

4.3.3 Growth Assumptions

The growth assumptions of the Moderate Growth and Redevelopment Alternative involve increasing the housing stock through residential infill development in existing vacant lots and underdeveloped parcels to create low-, medium-, and high-density housing as well as ADUs where applicable. This alternative also recommends implementing circulation improvements

and multi-use paths to create a safe and connected network throughout the City that connects community members to schools, residential areas, and shopping opportunities, including a new full-service grocery store with healthy and affordable food options.

The assumptions for the Downtown, North, and West neighborhoods include the creation of complete streets and expanded bus service that would connect residents to goods and services in the downtown core and throughout McFarland. Another assumption limits new development in McFarland to a maximum building height of 3 stories to maintain the community's small-town character.

4.3.4 Guiding Principles

The Redevelopment Alternative utilizes redevelopment principles that place new construction on sites with pre-existing uses, such as infill, densification, and repurposing. The focus of this alternative is prioritizing development on under-utilized and vacant parcels.

Residential Development

- Capitalize on existing vacant lots and under-developed parcels for residential infill and accessory dwelling units (ADUs)
- Increase multi-family housing density and affordable housing

Mixed Use

- Redevelopment in under-developed parcels in the downtown areas for residential and retail or commercial uses
- Capitalize on existing vacant lots and under-developed parcels for residential infill and accessory dwelling units (ADUs)

Circulation

- Creation of complete streets and multi-use pathways that improve access to schools and neighborhoods
- Connect regions in the City through expanded bus service

Light Industrial

- Redevelopment concentrated in areas southeast along Highway 99
- Development of industrial space that improves economic development and provides diverse job opportunities

4.3.5 Conceptual Land Use

The Redevelopment Alternative proposes changes in land use to increase walkability and accessibility to retail, jobs, services, and recreation. To accomplish this, the alternative identifies opportunities in the follow key growth areas of McFarland:

Downtown Core

The downtown core provides opportunities for mixed-use commercial and residential development through infill. Proposed mixed-use development is focused on 2nd Street between Perkins Avenue and Sherwood Avenue, with the center of development focused on Kern Avenue.

North and West Neighborhoods

There are opportunities in the western and northern portions of McFarland for high density housing and improved connectivity. Most of the new housing development would occur along Garzoli Avenue and West Perkins Avenue.

Southern Highway Commercial

The southern portion of the City has room for larger highway commercial developments and a full-service grocery store. Additionally, there is space for additional industrial and commercial activities to support new job growth to the east of Highway 99 and south of Sherwood Avenue.

East Neighborhood

Based on community input, eastern McFarland would benefit from increased connectivity to the west side. Additionally, there is room for ADUs throughout the neighborhood to increase the availability of affordable housing, and this alternative also proposes mixed-use office buildings along the highway corridor to support job growth.

4.3.6 Residential Land Use

The community needs to accommodate 5,830 new housing units by 2040 to meet a total need of 8,910 housing units. Most of the new development is to comprise infill of vacant parcels for high-density housing and ADUs where appropriate. In the northern part of the City, there is potential for infill development in the form of high-density housing and ADUs within proximity to parks and the downtown core. In the southern area of McFarland, redevelopment opportunities for compact residential development could enable access to new commercial opportunities.

The Redevelopment Alternative promotes higher density residential development and opportunities for potential ADUs to grow the City of McFarland. The alternative's residential pie graph, shown in Figure 4-9, details the distribution of the conceptual residential land use densities in categories of mixed-use, ADU opportunities, and low and high density. Based on proposed development and existing residential growth, residential land uses in 2040 would comprise 69% low density residential, 10% high density residential, 20% ADU opportunities, and 1% mixed-use development.

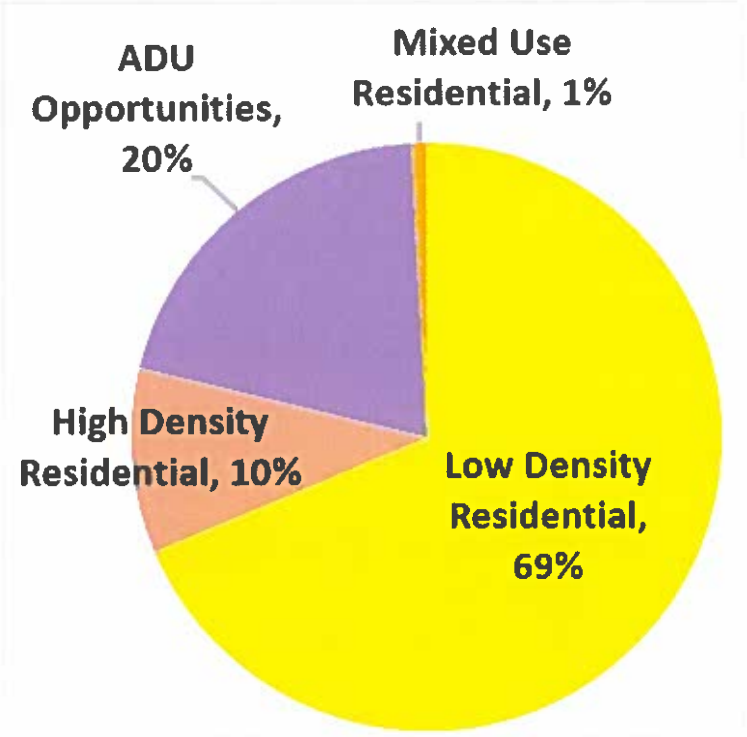


Figure 4-9: Residential densities for Moderate Growth and Redevelopment Alternative.

The low-density residential parcels are to be located on the edges of the City boundary, as well as the repurposed sites of the Central Valley and Golden State Correctional Facilities. The high-density residential parcels are to be located west of Highway 99 in the North, West, and South neighborhoods. ADUs are to be located throughout the City, and mixed-use parcels are to be located near the Downtown Core.

4.3.7 Commercial Land Use

For commercial growth, the Redevelopment Alternative recommends a variety of development types to provide space for businesses for the growing community. This concept has the following features:

- The Downtown Core has space for commercial development and mixed-use in the central core,
- The East Neighborhood can accommodate offices and compact business uses, as well as industrial and commercial uses in the southeast.
- The Southern Highway Commercial has room for a full-service grocery store or similar big-box retail.

Downtown Core

The Downtown Core embraces mixed-use development that offers a combination of commercial services and provides housing close to restaurants, shops, and public spaces.

North and West Neighborhoods

The North and West Neighborhoods integrate new commercial infill opportunities into underutilized areas along Highway 99 in the north and in available parcels west of Downtown.

Southern Highway Commercial

The Southern Highway Commercial area incorporates new commercial space south of the City along Highway 99 for businesses requiring more space, including a grocery store.

East Neighborhood

The East Neighborhood includes additional space for commercial uses near the center of the residential area as well as greater commercial development along Highway 99 in the south.

4.3.8 Key Growth Areas

The Moderate Growth and Redevelopment Alternative identifies four key growth areas of opportunity in McFarland that serve as anchor points of change and development. These opportunities are centered around redevelopment of existing vacant lots to meet the future community needs of McFarland.

Downtown Core

New mixed-use residential and commercial developments built along complete streets can create a distinct walkable downtown with multiple commercial options accessible to residents and visitors. The development of vacant lots with commercial and residential mixed-use can also create a cohesive streetscape along West Kern Avenue. In doing so, the Downtown Core key growth area would become distinct with a multitude of commercial options for residents and visitors by providing economic and housing growth in mixed-use spaces where residents can walk to nearby schools, stores, parks, and services. Figure 4-10 shows the existing downtown area, while Figure 4-11 shows what it might look like under the Redevelopment Alternative.



Figure 4-10: Downtown Core, existing.

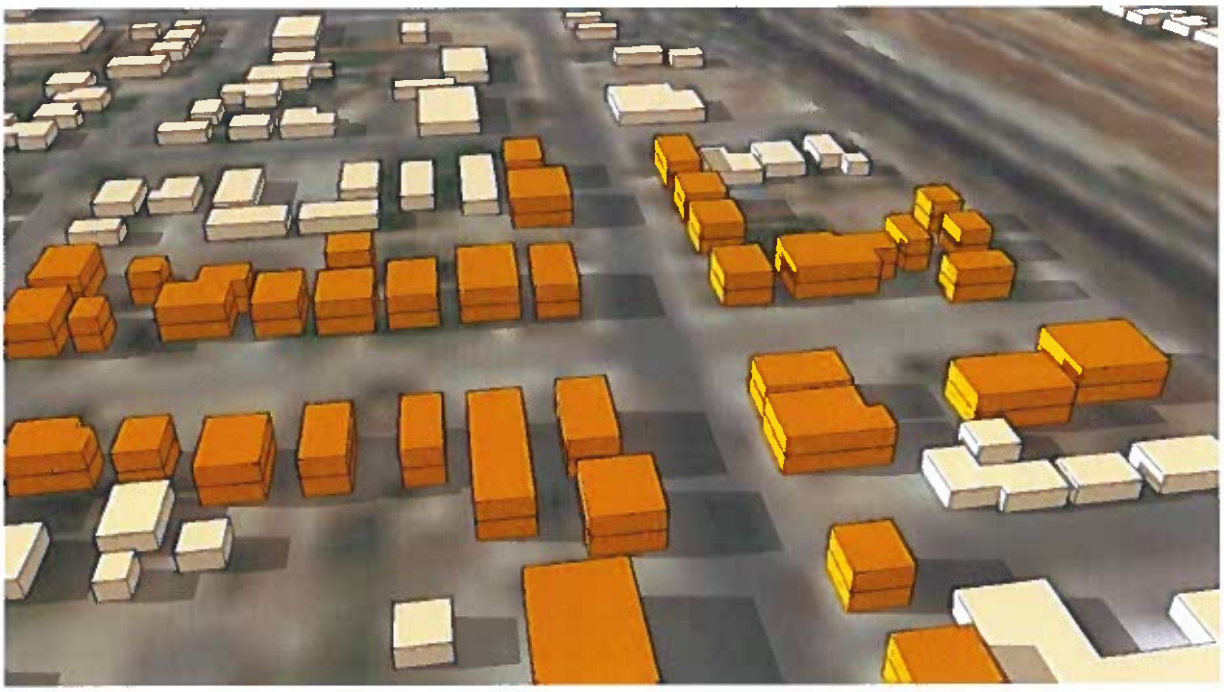


Figure 4-11: Downtown Core, proposed.

North and West Neighborhoods

McFarland's North and West Neighborhoods represent prime opportunities for new residential development. These key growth areas allow for the development of low and high-density housing on existing vacant lots, such as those shown in Figure 4-12, to build homes within walking or biking distance of Downtown. Underutilized parcels also offer space to develop new commercial uses along Highway 99, including high density residential and mixed-use near West Perkins Avenue. Figure 4-13 shows what the North Neighborhood might look like under the Redevelopment Alternative.



Figure 4-12: North Neighborhood, existing.



Figure 4-13: North Neighborhood, proposed.

Southern Highway Commercial

The sites of the Central Valley and Golden State Correctional Facilities between Taylor Avenue and Cliff Avenue, shown at the top of Figure 4-14, offer opportunity for new housing and retail development, as envisioned in Figure 4-15, and would be an optimal site for a full-service grocery store. The Southern neighborhood allocates space for low and high-density residential development near McFarland Junior High School and McFarland High School. Vacant lots along the south side of Taylor Avenue near Frontage Road also offer potential for office space to create additional jobs and centers of employment. The Highway 99 corridor south of Hanawalt Avenue is an additional area for commercial development to attract visitors on the highway and increase the City's economic development.



Figure 4-14: Southern Neighborhood, existing.



Figure 4-15: Southern Neighborhood, proposed.

East Neighborhood

The East neighborhood is to accommodate industrial and commercial space south of Taylor Avenue on the east side of Highway 99. Light industrial development can provide opportunities for diverse employment near commercial areas and within the boundaries of McFarland. The underutilized spaces near the Highway 99 overpasses, like those in Figure 4-16, provide opportunity for new infill office buildings to support new jobs and economic development, as represented in Figure 4-17. New low and medium density homes and ADUs also create new housing opportunities in this neighborhood.



Figure 4-16: East Neighborhood, existing.



Figure 4-17: East Neighborhood, proposed.

4.3.9 Circulation

The Redevelopment Alternative strives to improve circulation opportunities through:

- Increased multi-use and dedicated bicycle and pedestrian paths
- Traffic calming measures including crosswalks and signage
- Complete streets with additional bus stops in areas that currently have limited access

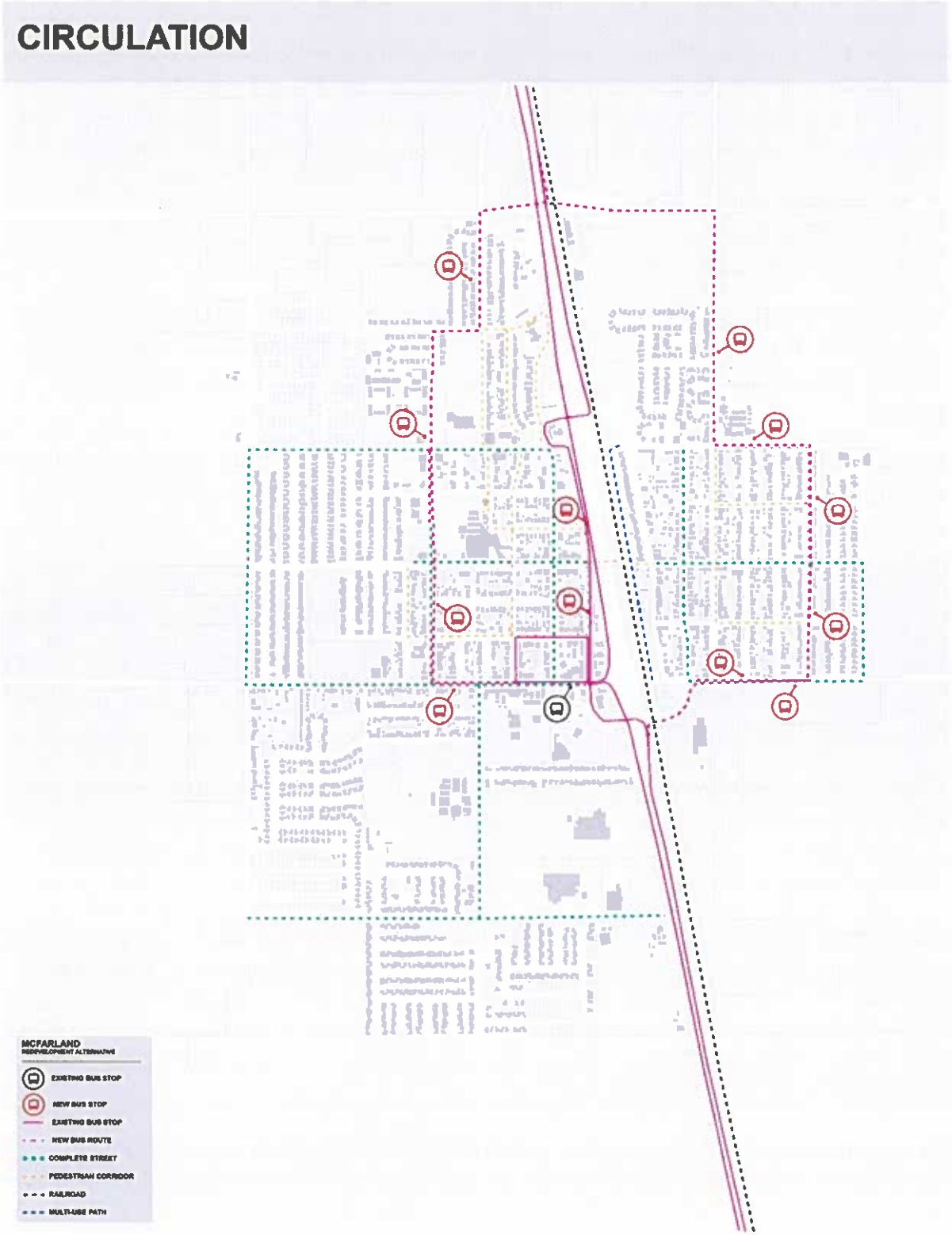
To accommodate additional growth, this alternative includes infrastructure upgrades for roads and increasing the variety of travel modes that can be accommodated by creating complete streets. Implementation of these circulation opportunities can increase connectivity for bicyclists, pedestrians, and vehicles.

Map 4-5 shows the conceptual circulation map for the Moderate Growth Alternative. This alternative proposes a network of complete streets, shown in green, that would connect major streets within the community. In Downtown and East McFarland, there is greater focus on pedestrian corridors (as shown by the dashed-orange lines) that would allow people to walk freely and comfortably. This alternative also incorporates a planned multi-use path (as shown by the dashed-blue line) east of the railroad that connects East Perkins Avenue and East Sherwood Avenue. This proposed trail can take advantage of underutilized space to create a walkable area. Finally, to connect areas of the community, an expanded network of new bus routes and stops is proposed around the East, North, and Downtown neighborhoods.

4.3.10 Outcomes

The Moderate Growth and Redevelopment Alternative focuses most of the new development in key growth areas in the North, Downtown, West, East, and South Neighborhoods. Development consists of new residential, commercial, and industrial expansion. New residential growth in City boundaries are to be largely high-density housing and ADUs on infill and redevelopment parcels. The integration of dense infill commercial and mixed-use redevelopment in the Downtown Core can create opportunities for people to work, live, shop, and interact. The highway commercial corridor can provide services for residents and attract visitors from Highway 99 into the City of McFarland. Although McFarland residents continue to rely on single-occupancy vehicles, improvements to pedestrian, bicycle, and public transportation infrastructure and connectivity can enhance the circulation system and reduce the need for individuals to drive within the community. An effort to develop complete streets with pedestrian safety crossings and traffic calming measures can promote a welcoming environment for pedestrians, bicyclists, and public transportation users in McFarland.

Map 4-5: Conceptual Circulation Map for Moderate Growth and Redevelopment Alternative



4.4 Smart Growth

4.4.1 Introduction

The Smart Growth Alternative accounts for the most aggressive population growth in the City of McFarland, maximizing infill within the City and new development outside of the existing City boundary to accommodate the maximum potential population, housing, and job growth. This alternative identifies three key areas for growth of housing and jobs across the City:

- Downtown Infill
- Westside Expansion
- Highway 99 Improvements

Future growth of housing is concentrated in the Downtown Infill and Westside Expansion key growth areas. Future growth of jobs is focused along Highway 99, where land is designated for light and heavy industrial uses, as well as highway commercial retail and services to support job growth.

According to the population projections shown in Table 4-8, the City of McFarland's population is to increase by 19,289 people from 2017 to 2040 under the Smart Growth Alternative resulting in a total population of 33,219 by 2040.

Table 4-8: Population for each Growth Alternative

	Business as Usual	Redevelopment	Smart Growth
2017 Population	13,930	13,930	**13,930**
2040 Population Projection	23,690	27,854	**33,219**
2017-2040 Projected Population Growth	9,760	13,924	**19,289**

Source: Cal Poly Planning Team, 2020

The population, employment, and housing projections for the Smart Growth Alternative were based on the job-to-labor force ratio of 1.2 taken from McFarland employment data from 2010 to 2017. As seen in Table 4-9, projections from this ratio show a target job increase by10,451 jobs from 2017 to 2040 to reach a total of 17,194 jobs in 2040.

Table 4-9: Jobs for each Growth Alternative

	Business as Usual	Redevelopment	Smart Growth
2017 Jobs	6,743	6,743	**6,743**
2040 Job Targets	11,833	14,176	**17,194**
2017-2040 Job Target Growth	5,090	7,433	**10,451**

Source: Cal Poly Planning Team, 2020

To accommodate increased population and employment in the City of McFarland, new residential development is needed. As seen in Table 4-10, under the Smart Growth Alternative,

7,550 new housing units would be needed by 2040, increasing the total housing stock to 10,630 housing units.

Table 4-10: Housing for each Growth Alternative

	Business as Usual	Redevelopment	Smart Growth
2017 Housing Stock	3,080	3,080	**3,080**
2040 Housing Projection	7,580	8,910	**10,630**
2017-2040 Projected Housing Growth	4,500	5,830	**7,550**

Source: Cal Poly Planning Team, 2020

4.4.2 Vision

As stated by a McFarland resident, the City is the historic "agricultural heartbeat of Kern County." Looking towards the future, McFarland has the potential to become an industrial hub and job-rich community while maintaining its vibrant agricultural industries. The Smart Growth Alternative uses McFarland's highest projections of population and jobs to develop its planning strategy for 2040 and beyond. The key growth areas target McFarland's most optimal locations for development: Downtown, Western McFarland, and the Highway 99 Corridor. Growth areas are designed to accommodate maximum growth while aligning with McFarland's desires to remain an agriculture-based City.

4.4.3 Growth Assumptions

McFarland's most aggressive growth target for 10,451 additional jobs could result in an increase in population by 19,289 people, which would require additional 7,550 housing units to support the projected growth. These forecasts fit well with McFarland's current goals of expanding the City's Sphere of Influence (SOI) and annexing additional land to increase access to resources and revenue. Still, residents desire to maintain McFarland's small-town feel and continue the City's long-standing history of active community members. Therefore, the proposed growth areas considered opportunities for community engagement and connections between growth areas, including providing adequate open space close to newly proposed housing, pedestrian-friendly commercial districts, and placemaking through community design.

4.4.4 Guiding Principles

In the Smart Growth Alternative, the guiding principles come from four main themes that encompass the needs under all 13 elements of a community plan: land management, connectivity, habitation, and public well-being. The following principles were also developed to meet the needs of the community:

- Develop strong commercial districts through mixed-use, highway commercial, and infill commercial development.
- Increase the ease and appeal of access within the City (primarily east to west) as well as into the City.
- Expand the variety of housing options to provide for households of varying income levels.

- Decrease McFarland's reliance on its neighbors by creating and expanding commercial and industrial uses.
- Develop McFarland's sense of place and frame the City as a regional destination.

4.4.5 Conceptual Land Use

The Smart Growth Alternative proposes changes in land use for residential development to take place outside of flood zones, expansion of commercial activities along Highway 99, and the creation of a vibrant downtown core as shown in Map 4-6. This alternative allocates 850 acres of land for residential use to prepare for future housing needs and 280 acres of land for commercial use (including mixed-use) to appropriately prepare for future job growth.

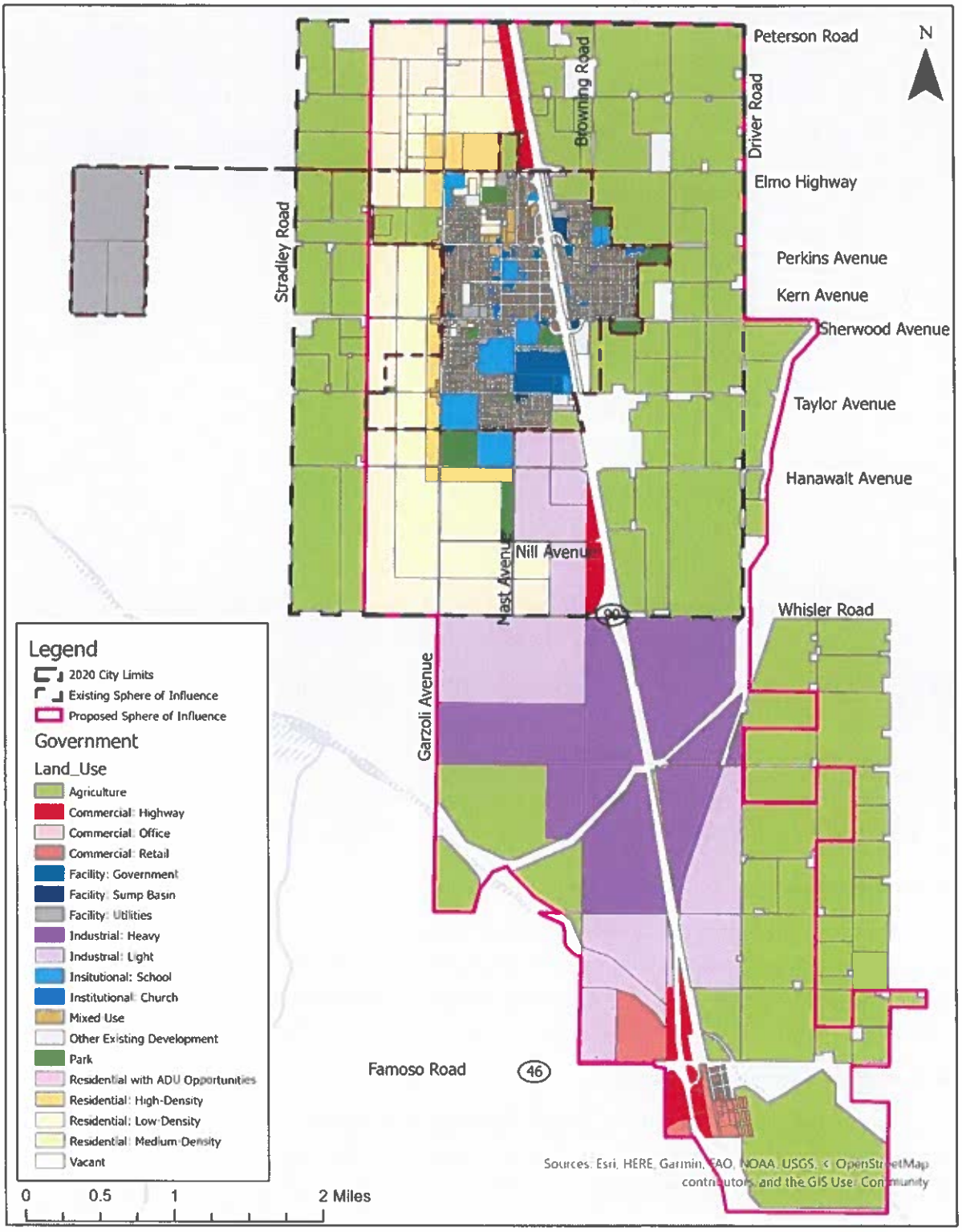
4.4.6 Residential Land Use

To appropriately provide for the anticipated population growth in this aggressive growth alternative, the City would need sufficient space to accommodate 7,550 new housing units by 2040. Proposed housing is limited to the northern and western areas of McFarland due to several factors including extensive Williamson Act lands to the east, flood hazards to the east and south, and limited capacity of municipal infrastructure serving east McFarland. In consideration of these factors, the additional 850 acres for residential use is proposed in the Westside Expansion key growth area within and beyond the current City boundaries, and internally within the proposed Downtown Infill key growth area. This combination of internal and external residential growth is necessary to providing the necessary variety of housing options to support low-, middle-, and high-income individuals and families in McFarland.

Additionally, the Smart Growth Alternative promotes a higher density residential development compared to the previous two alternatives to expand the housing capacity of the City of McFarland to serve the maximum potential population growth while avoiding low-density sprawl. Still, low- and medium-density residential are prominent in this alternative, maintaining McFarland's small-town feel. The pie graph, shown in Figure 4-18 details the distribution of residential densities by total acreage under the Smart Growth Alternative. The Alternative would result in the following allocations of residential acreage:

- 33% medium density residential use
- 32% low density residential use
- 20% mixed-use residential use
- 15% high density residential use.

Map 4-6: Conceptual Land Use Map for Smart Growth Alternative



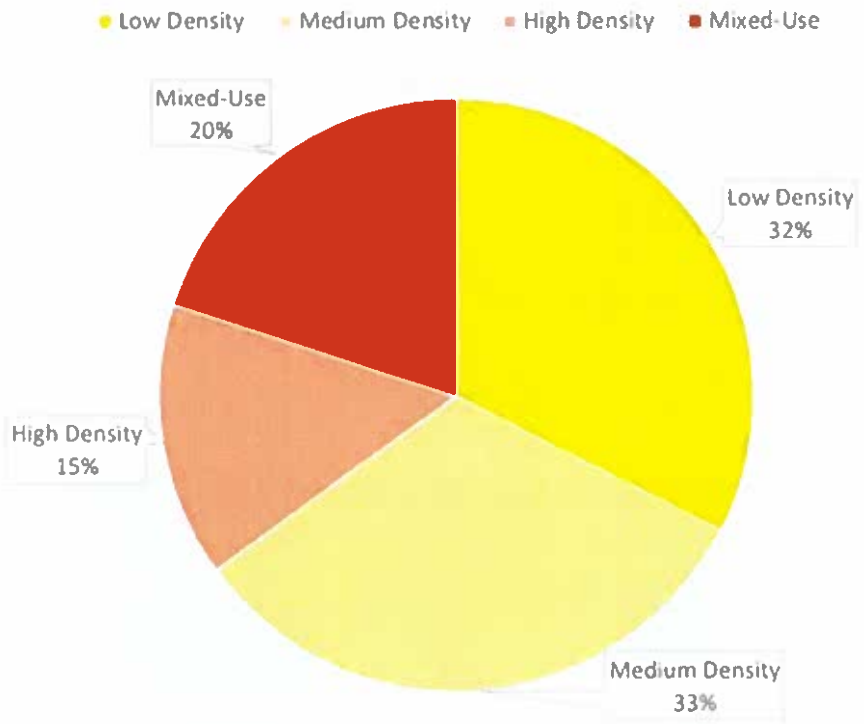


Figure 4-18: Distribution of housing densities under Smart Growth Alternative

4.4.7 Commercial Land Use

To account for continued commercial expansion, the Smart Growth Alternative proposes three specific commercial growth concepts:

- Downtown Infill
- Neighborhood Commercial Nodes
- Highway Commercial

Downtown Infill

Downtown commercial in this area is to serve the regional needs for dining and entertainment as well as local neighborhood commercial uses such as small grocery markets and services. Jobs in this area are to be primarily in the service sector, including hairstylists, accountants, and restaurant workers.

Neighborhood Commercial Nodes

Neighborhood Commercial nodes along Garzoli Avenue at Perkins, Sherwood, and Taylor Avenues, as well as on East Kern Avenue from Browning Road to San Pedro Street, are to serve the residents in nearby communities.

Highway Commercial

Highway commercial is to focus on providing uses for traffic along Highway 99, including gas stations, hotels, and casual or fast-food dining options. The highway commercial corridor is also to serve workers in nearby light and heavy industrial areas.

The Smart Growth Alternative targets the highest level of job availability to grow the City of McFarland's economic base. The Smart Growth Alternative's commercial and industrial pie graph, shown in Figure 4-19, details the distribution of space allocations to commercial and industrial land uses in categories of commercial, highway commercial, light industrial, and heavy industrial uses by total acreage. The proposed development of commercial and industrial uses includes:

- 40% heavy industrial
- 40% light industrial
- 15% commercial
- 5% highway commercial

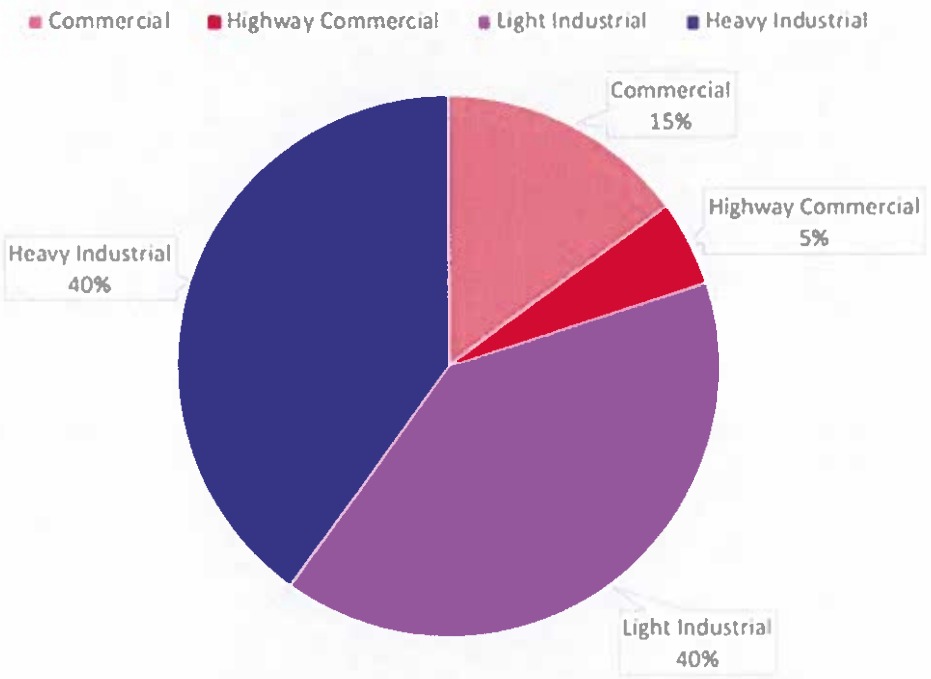


Figure 4-19: Smart Growth commercial & industrial uses by percent.

4.4.8 Key Growth Areas

The Smart Growth Alternative identifies three key growth areas that can serve McFarland as the City aggressively grows and develops. These areas are to accommodate the largest growth in development to meet the future needs of the community.

Downtown Infill

The Downtown Infill key growth area promotes a thriving town core with bandwidth to support additional residential, commercial, and office development. To facilitate this commercial, office, and residential mix, the entire downtown core is to be designated for mixed-use development. This designation is to allow buildings to host commercial or office on the first floor and residential units on the upper floors, and the increase in density would enable the offer of density bonus opportunities for affordable housing developers. The Downtown Infill growth area, seen in existing conditions in Figure 4-20 and in the future in Figure 4-21, can also provide key connections to Perkins, Kern, and Sherwood Avenues to serve as main commercial corridors, and to Garzoli Avenue which can act as a perpendicular commercial corridor.



Figure 4-20: Downtown Infill, existing.



Figure 4-21: Downtown Infill, proposed.

Westside Expansion

The Westside Expansion key growth area, seen in existing conditions in Figure 4-22, stands to promote a range of low-to-high density residential developments to accommodate potential population growth. High-density residential development is proposed along the westside's main arterial roadway at Garzoli Avenue while medium and low-density housing is proposed on slower moving residential streets, seen in Figure 4-23. West McFarland was identified as a key residential site due to its location outside of a flood zone and its distance from Highway 99, which would limit pollution and noise concerns.



Figure 4-22: Westside Expansion, existing.



Figure 4-23: Westside Expansion, proposed.

Highway 99 Improvement

The Highway 99 Improvement key growth area, seen in existing conditions in Figure 4-24, is to promote highway-serving commercial uses such as gas stations and hotels, as well as industrial uses such as manufacturing. Highway commercial uses could be most beneficial at Famoso and Highway 99 which has the greatest opportunity of capturing Famoso Raceway traffic. Light and heavy industrial development is to be focused on the intersection of Whisler Road and Highway 99 to support new job growth, as seen in Figure 4-25. Additionally, signage improvements for highway off-ramps can further help to draw visitors from Highway 99 into the City's commercial areas.



Figure 4-24: Highway 99, existing.

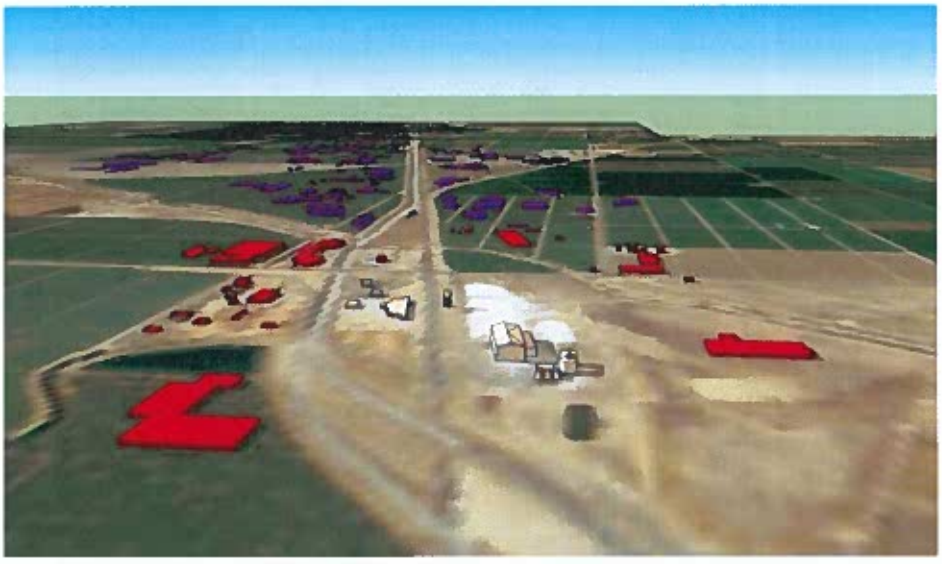


Figure 4-25: Highway 99, proposed.

4.4.9 Circulation

The Smart Growth Alternative proposes to improve circulation in the City through:

- Expanding public transit to integrate a new internal City transit network with the existing regional transit system
- Developing bicycle and pedestrian infrastructure for increased connectivity between homes, schools, and parks
- Improving non-motorized crossings between East and West McFarland

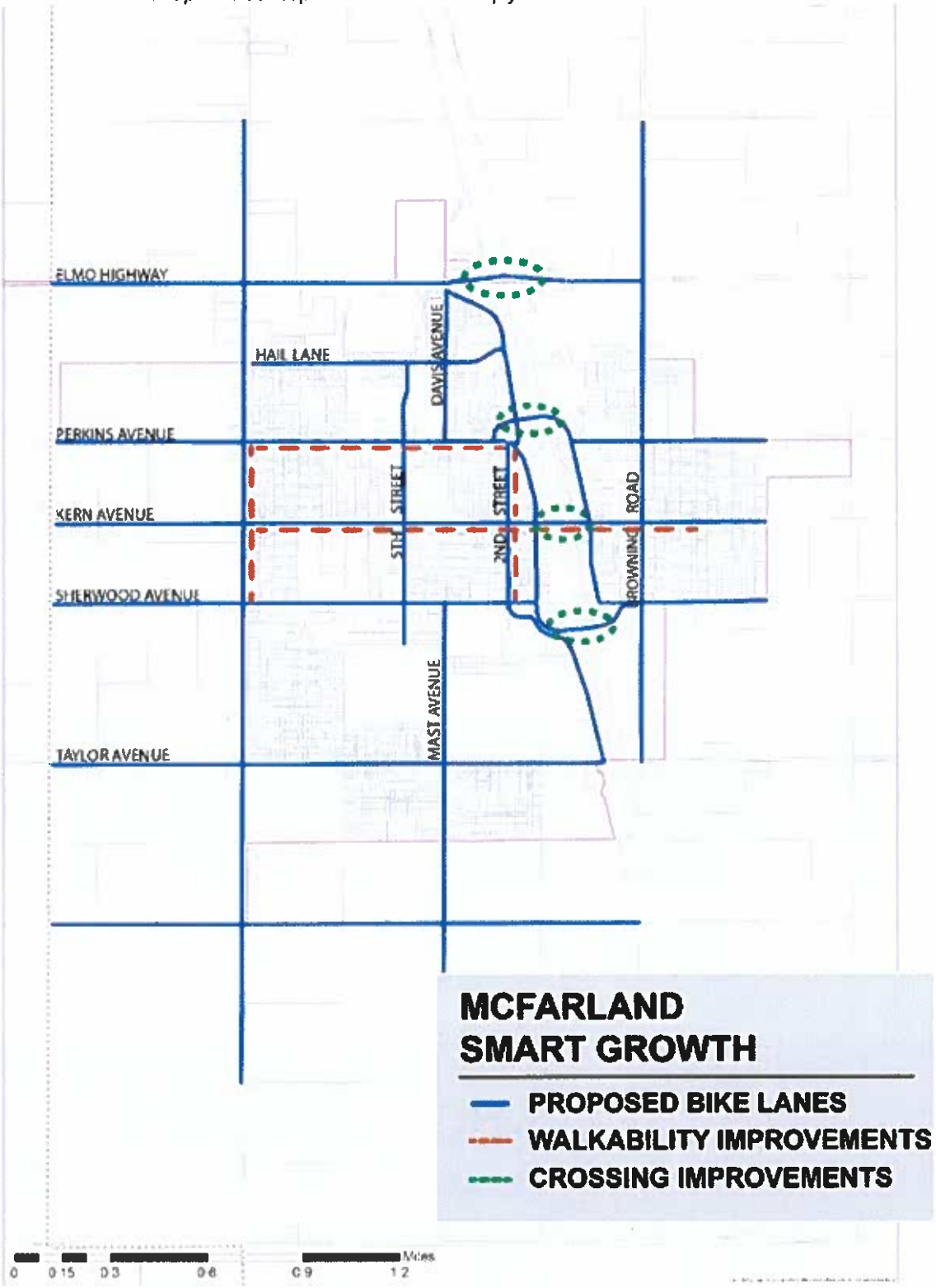
The proposed bicycle and pedestrian network for this alternative suggests improvements centered on improving non-motorized connectivity and safety. Map 4-7 shows the conceptual circulation map. The blue lines propose a separated bike network on major arterial roads which would connect activity centers and promote healthy lifestyles. The orange dashed line illustrates walkable pathways along the major commercial corridors. These pathways are to include widened sidewalks, added benches and other pedestrian amenities, and improved landscaping. The green dashed lines are highway crossings on Elmo Highway, Perkins Avenue, Kern Avenue, and Sherwood Avenue, which are proposed to mitigate barriers for pedestrian and bicyclist connectivity between East and West McFarland.

The proposed transit network in the Smart Growth Alternative can help to accommodate people without access to private vehicles. Map 4-8 depicts the Conceptual Transit map. The purple dashed line represents proposed intra-city transit to connect residential areas to commercial hubs and public facilities. Additionally, the pink line illustrates the existing Kern Transit route, including newly proposed bus stops to accommodate trips to the proposed developments in the south of the City.

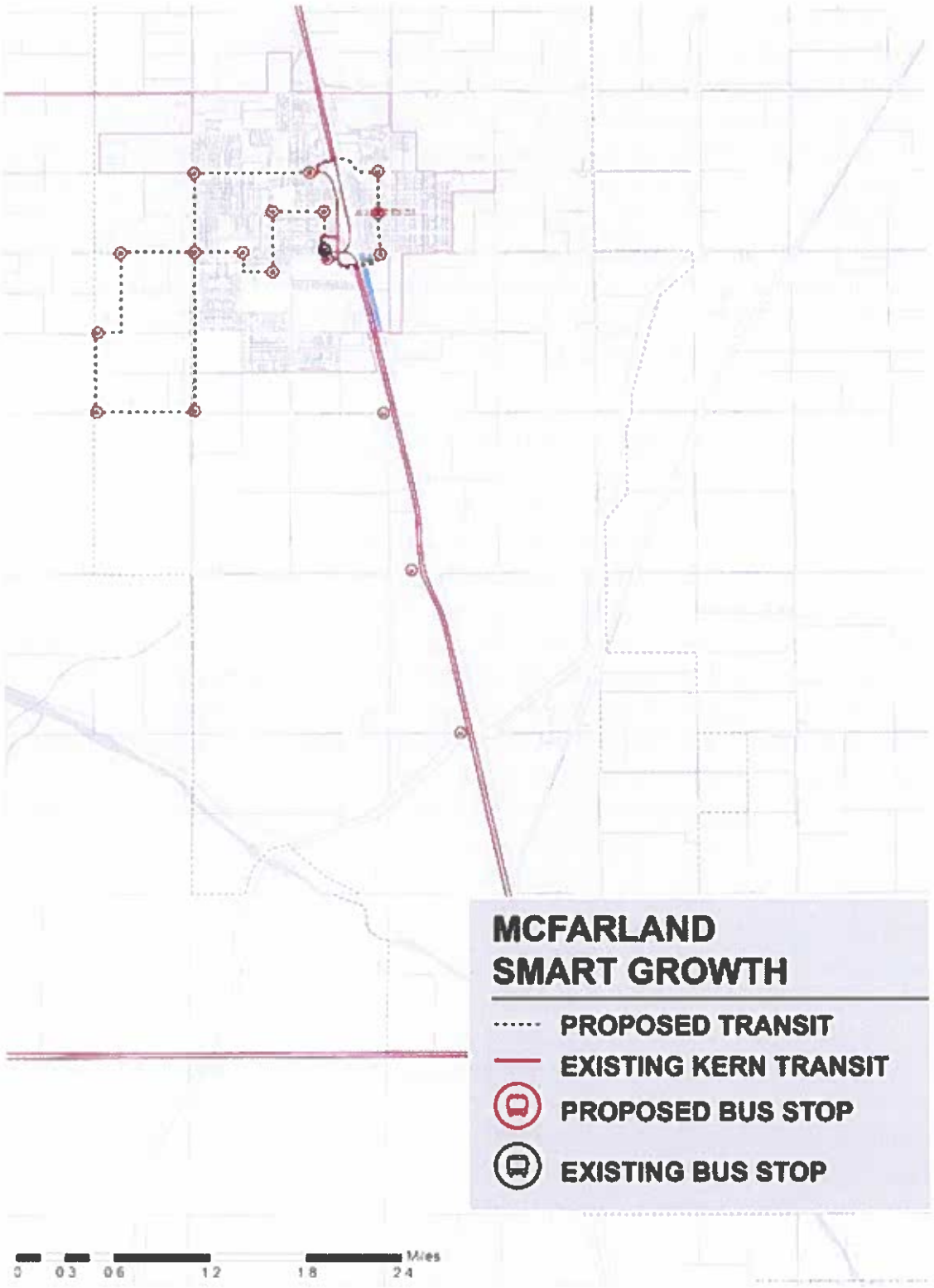
4.4.10 Outcomes

The Smart Growth Alternative focuses its aggressive growth in three key areas to serve the needs of neighborhoods, the region, and travelers on Highway 99. To avoid locating new residential development in hazard areas, the alternative increases the density of housing, particularly in the Downtown Infill and Westside Expansion key growth areas. Additionally, new mixed-use and commercial development are prioritized in the Downtown Infill area to support a vibrant downtown and at key intersections within the Westside Expansion key growth area (Garzoli Avenue at Perkins, Sherwood, and Taylor Avenues). Commercial development is also prioritized along Highway 99 to encourage highway travelers to stop in McFarland. Furthermore, the Smart Growth Alternative identifies gateways, an internal transit system, and safe and complete streets for all road users as necessary points of efficient circulation and connectivity for the future of McFarland.

Map 4-7: Conceptual Circulation Map for Smart Growth Alternative



Map 4-8: Conceptual Transit Map for Smart Growth Alternative



5. PREFERRED GROWTH ALTERNATIVE

5.1 Introduction

The Preferred Growth Alternative is the vision for development changes in McFarland by the year 2040. It was developed with the community's preferences of concepts in the three development alternatives detailed in Chapter 4: Development Alternatives. This chapter presents growth assumptions as well as community-wide features, land use, and circulation concepts within five key growth areas. The Preferred Growth Alternative reflects future land use designations, housing allocation, and circulation improvements needed to meet the population growth projections and targets for job growth. It therefore carries implications for each of the General Plan elements: Land Use, Circulation, Housing, Conservation, Open Space, Safety, Noise, Public Facilities, Economic Development, Community Design, Health, Environmental Justice, Air Quality, and Sustainable Agriculture.

5.2 Concept & Proposal

The Preferred Growth Alternative is directly based on community feedback from community meetings, particularly Meeting 3 of February 20, 2020 during which three development alternatives were presented. The Preferred Growth Alternative focuses on creating a diverse local economy supported by a housing stock that accommodates a growing population and balances land development and open space. Major growth areas include: Revitalized Downtown, West Expansion, Whisler Road Neighborhood, Southern Commercial Corridor, and Famoso Industrial and Commercial Center. These growth areas introduce medium-density, high-density, and mixed-use development, as well as accessory dwelling units (ADUs) in residential neighborhoods that are eligible for the additional units using vacant and underutilized parcels. In addition, the Preferred Growth Alternative promotes sustainable design and improvements to the City's circulation network. Circulation improvements focus on creating a network of complete streets, which provide space for automobiles, pedestrians, and bicycles, along with an expanded public transportation system to serve internal circulation needs while it connects McFarland residents to neighboring communities.

5.3 Vision

Under the Preferred Growth Alternative, McFarland would transform into a connected community that can accommodate growth in population and economic activity. Residents can travel from home to work and shopping by multiple modes, while visitors are drawn to the City's vibrant commercial opportunities. The vision includes multiple areas of residential development infrastructure for active transportation and pedestrian safety, and the creation of a comprehensive transportation network. Combined, these transformations can help McFarland become a magnet for residential and commercial activity.

5.4 Growth Assumptions

The Preferred Growth Alternative aims to allocate sufficient space to accommodate population, housing, and jobs through the year 2040 for the most aggressive growth scenario. Based on

community feedback and demographic projections, land uses are allocated to balance housing and jobs, expand housing options, and increase job opportunities for a growing population. Therefore, land uses in the growth areas are proposed to include uses such as mixed-density housing, mixed-uses, neighborhood and highway commercial, and offices.

5.4.1 Population, Housing, and Jobs

Based on the population projection using local birth, death, and migration rates, baseline population is estimated to be 23,690 in 2040, which is an 82% increase from 13,020 in 2015. However, the Preferred Growth can accommodate the most aggressive plausible growth to 33,220 people. Population growth translates to households which indicates the need for up to 10,640 housing units in the City. In addition, the projection shows increase in number of people in the 25 to 39-year-old age group, which suggests increasing the quantity and variety of job opportunities to a total of 17,195 jobs by 2040.

5.4.2 Economic Development

The Preferred Growth Alternative focuses on diversifying and increasing employment opportunities for the growing population. Agriculture, the City's predominant employment sector, offers low-paying jobs. To help increase incomes and expand job opportunities, the mixture of compatible residential, commercial, and office land uses are proposed in the Revitalized Downtown while low-polluting industrial and highway commercial uses such as gas stations and fast food restaurants are proposed for major job centers at Highway 99 interchange areas.

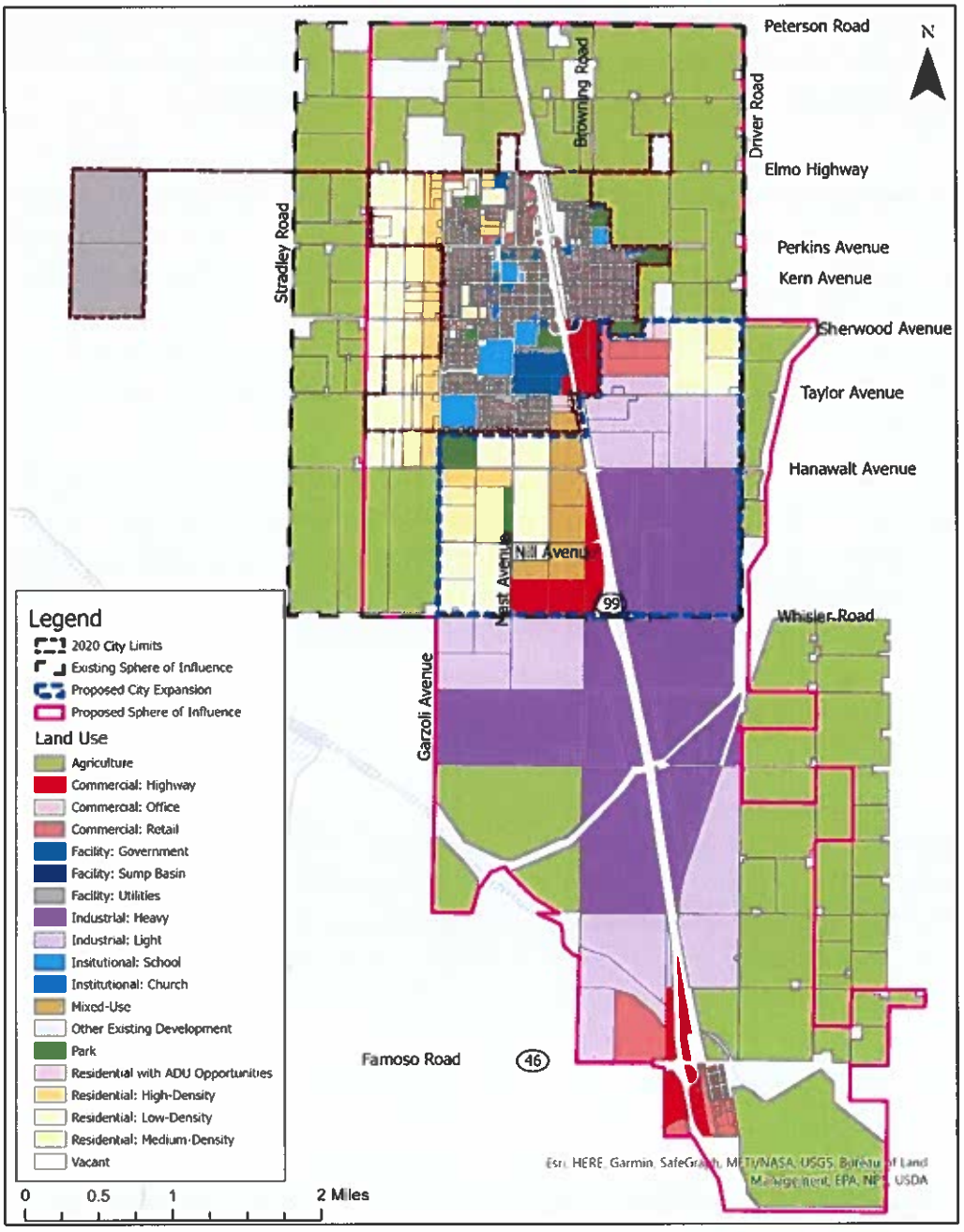
5.4.3 Housing Distribution

The Preferred Growth Alternative is to accommodate the need for shelter according to multiple dimensions in terms of size, cost, and location. Mixed-density housing is to accommodate various household sizes and income levels. High, medium, and low-density housing are proposed in areas on the north, south, east, and west boundaries of the City whereas accessory dwelling units (ADUs) and residential/commercial mixed uses are envisioned within central areas of the City. The following section describes the key growth areas and development characteristics.

5.5 Conceptual Land Use

Map 5-1 illustrates the concepts for future land use envisioned for the City of McFarland. It represents the de facto Land Use Map for the updated McFarland General Plan. The following subsections offer brief descriptions of the five key growth area that dominate the make-up of the new General Plan.

Map 5-1: Conceptual Land Use Map



5.5.1 Revitalized Downtown

The Plan proposes changing McFarland's residential-dominant downtown neighborhood into a mixed-use residential and commercial environment. The mixed-use designation would define McFarland's downtown core by providing a vibrant commercial district and source of activity for residents as well as visitors passing through McFarland on Highway 99. This designation can

reduce the need for residents to travel out of town while increasing McFarland's ability to attract visitors.

Connection to the east side of McFarland is a critical component to this alternative because internal circulation within the City is to improve access for all residents. Since new development is limited on the east side due to flood hazards, developing mixed use on East Kern Avenue and improving walkability via the Highway 99 pedestrian overpass is vital in the development of a vibrant downtown commercial hub. The extension of the downtown core toward the east side would reinforce the concept of a continuous downtown with commercial opportunities for all McFarland residents. The extension is to provide commercial and residential opportunities on the east side as part of the downtown core of the Revitalized Downtown area.

5.5.2 West Expansion

The West expansion area is primarily to consist of low-density, medium-density and high-density residential units in areas that are contiguous with the central built-up core of the City. As the City grows outwards, recreational open space is to be dispersed throughout this zone to accommodate the need for community gathering. This expansion is to accommodate McFarland's most ambitious population growth of 33,220 by 2040. Commercial areas in the neighborhoods are to screen residential areas from roadway noise, provide services to the community, and reduce the need to travel out of town or downtown to find resources. Mixed-use designation is proposed for the intersections of Garzoli Avenue at Perkins Avenue, West Kern Avenue, and Sherwood Avenue.

5.5.3 Whisler Road Neighborhood

Like the West Expansion area, this growth area is to add low-density, medium-density, and high-density housing options to an area under agricultural and low-density residential use. In addition, new recreational park space is to be added along the adjacent commercial corridor to meet open space needs for McFarland community members.

5.5.4 Southern Commercial Corridor

This area is adjacent to the Whisler Road Neighborhood. It would screen the community from exposure to the highway while providing the entire City with a major commercial core. Unlike the Downtown Infill area, this area is not to provide housing of any sort. It is to provide space for big-box retail and other commercial stores that the City needs to accommodate its major shopping needs and yet be readily accessible to motorists on Highway 99. Developing this area can reduce the need for residents to travel to other cities such as Wasco and Delano for shopping.

5.5.5 Famoso Industrial and Commercial Center

This area occupies most of the proposed expansion of McFarland's Sphere of Influence (SOI) to the south. Most of this growth area is for heavy and light industrial as well as office use to accommodate the need for jobs and industry within McFarland and increase its sources of revenue. The east portion of this area is prone to 500-year flooding events and thus would

require adequate mitigation to avoid damage to new developments. The area is to establish highway commercial and other commercial spaces at highway interchange areas further south in the SOI. The highway commercial districts, in addition to the new mixed-use downtown infill, can attract revenue from travelers on Highway 99.

5.6 Residential Land Use

The Preferred Growth Alternative includes a mix of low-density, medium-density, and high-density housing. In response to State mandates to reduce vehicle miles travelled and emissions, McFarland needs to accommodate growth with higher density residential uses than has been the case historically. The housing stock in McFarland is concentrated on the west side of the City and features low-density, single-family homes as the dominant form of housing. While this may have met the needs of the community, this is no longer the case considering new State mandates. Future population growth would need to be housed within medium and high-density mixed-use parcels located in the Downtown, North, and West neighborhoods to accommodate residents of all incomes, household types, and persons with special needs. Future residential development would be concentrated in the following key growth areas:

5.6.1 Downtown Infill

Downtown Infill aims to grow a vibrant town center. Residential development in this area focuses on mixed-use commercial and high-density housing options. This is meant to enable residents within the City's core reduce the need for motorized transportation while supporting economic development. The approval of accessory dwelling units in this neighborhood is to contribute to a compact development density which together with adjacent commercial uses can help reduce vehicle miles of travel.

5.6.2 West Expansion

This growth area aims to introduce a variety of housing densities to accommodate future growth in population. High-density is to be focused along major arterial roads and near commercial nodes. Medium density is to be focused along the outer arterial corridors. In areas outside the medium and high-density residential zones is low-density development. Residential allocations are intended to prevent urban sprawl during future growth of the City.

5.6.3 Whisler Road Neighborhood

This neighborhood is to add low-density, medium-density, and high-density housing options to an area that is contiguous to the southern City limits. The aim is to introduce a variety of housing densities to accommodate future growth in population and reduce vehicle miles as new State mandates require.

5.7 Commercial Land Use

Commercial land use in the Preferred Growth Alternative is characterized by two distinct types: general commercial and highway commercial. General commercial refers to neighborhood-serving stores and big-box stores that are suited for residents and visitors while highway commercial is primarily to provide service and shopping needs of customers travelling on

Highways 99 and Highway 46. The Preferred Growth Alternative allocates 465 acres to general commercial and 380 acres to highway commercial, totaling 845 acres. Future commercial development is to be concentrated in the key growth areas described in the subsections that follow.

5.7.1 West Expansion

While this area is mainly devoted to housing, there are provisions for neighborhood commercial centers at major intersections along major arterials. This is to serve residents in the area and preclude travel to distant locations for minor retail and restaurant items.

5.7.2 Whisler Road Neighborhood and Southern Commercial Corridor

These two neighborhoods include a mix of general commercial and highway commercial space with office space interspersed. There is general commercial in the northeast portion of the Southern Commercial growth area to serve the residents located in adjacent residential developments as well as in the proposed Sphere of Influence. There are highway commercial centers in the northern and southern sections of the Southern Commercial Corridor (directly adjacent to Highway 99 and the Whisler Road neighborhood).

5.7.3 Famoso Industrial and Commercial Center

The Preferred Growth Alternative proposes a new highway commercial and general commercial center at the Highway 46 and Famoso Road interchange to capture motorists along both Highway 46 and Highway 99. Proposed uses may include regional shopping centers, service stations, and hotels. This commercial area is also to serve the Famoso Raceway and establish this area as a commercial node along Highway 99. Most of this growth area is devoted to light and heavy industrial land uses to boost job creation and availability.

5.8 Mixed Land Use

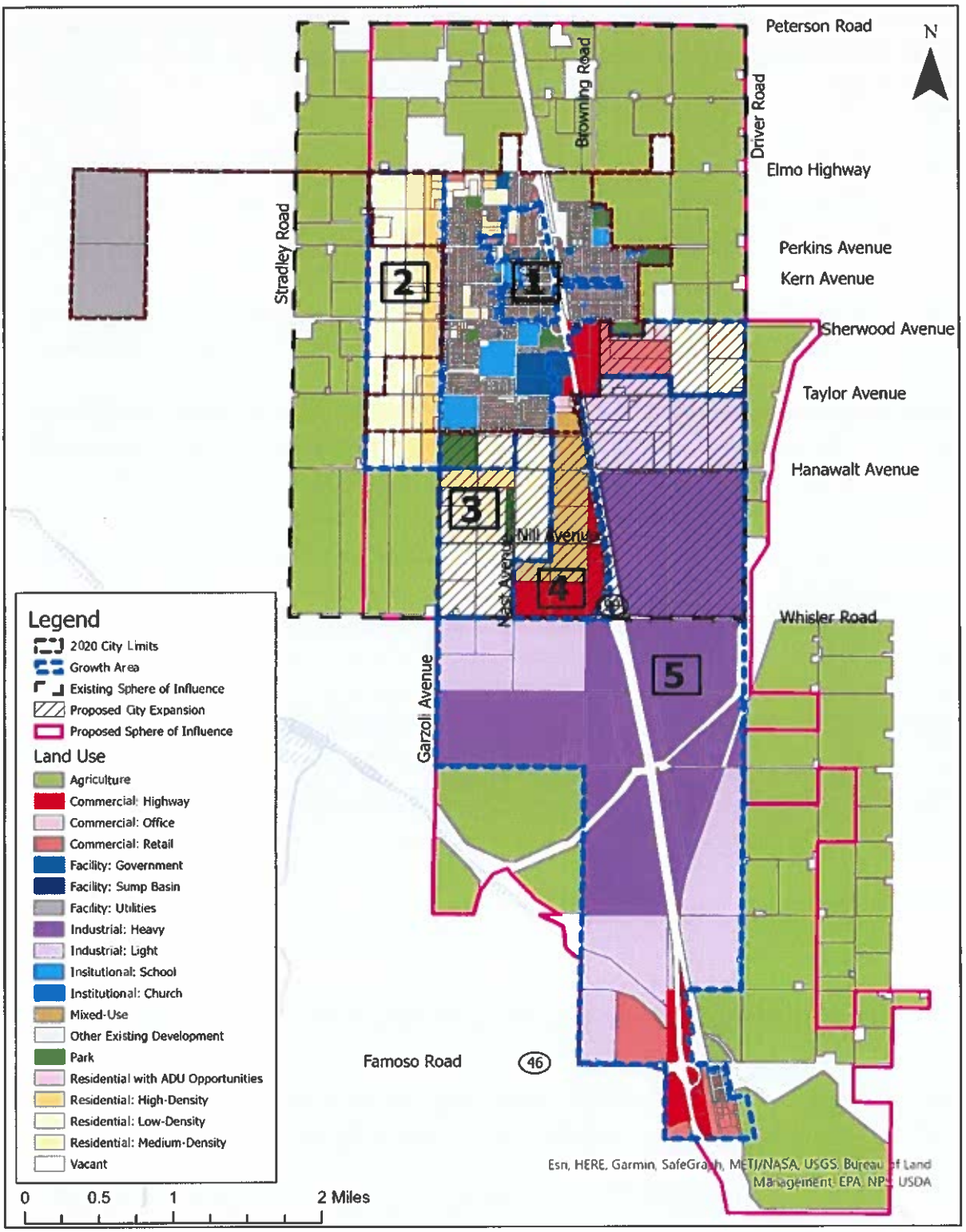
Mixed-use is a new land use designation in McFarland. Mixed-use is to provide opportunities within the City for horizontal and vertical placement of compatible residential and commercial uses within the same parcel. This typically would be in the form of commercial retail space on the bottom floor with residential or office units above.

The Preferred Growth Alternative proposes mixed-use development primarily in the Downtown Infill area with small developments along Garzoli Avenue in the western part of the City and in the central portion of the SOI west of Highway 99 and north of Nill Avenue.

5.9 Key Growth Areas

Map 5-2 demarcates the five key growth areas under the Preferred Growth Alternative. Subsequent subsections provide summary descriptions of the growth areas.

Map 5-2: Preferred Growth Alternative Key Growth Areas



5.9.1 Downtown Infill

Downtown is the economic and cultural center of the City of McFarland. In the Preferred Growth Alternative, vacant and underutilized lots on both sides of Kern Avenue and Highway 99 offer opportunities for mixed-use development as seen on Map 5-3 and for accessory dwelling units. In addition, pedestrian crossings on Kern Avenue and the addition of complete streets are to create vibrant, safe corridors in downtown. Traffic calming measures such as raised crosswalks and flashing signage and added street trees and landscaping are to help improve walkability. This is needed to improve resident and visitor experience as well as safety for pedestrians and bicyclists traveling in the downtown area. Map 5-3 displays the conceptual land use map for the Downtown Infill section of McFarland.

Map 5-3: Preferred Growth Alternative Key Growth Area #1: Downtown Infill

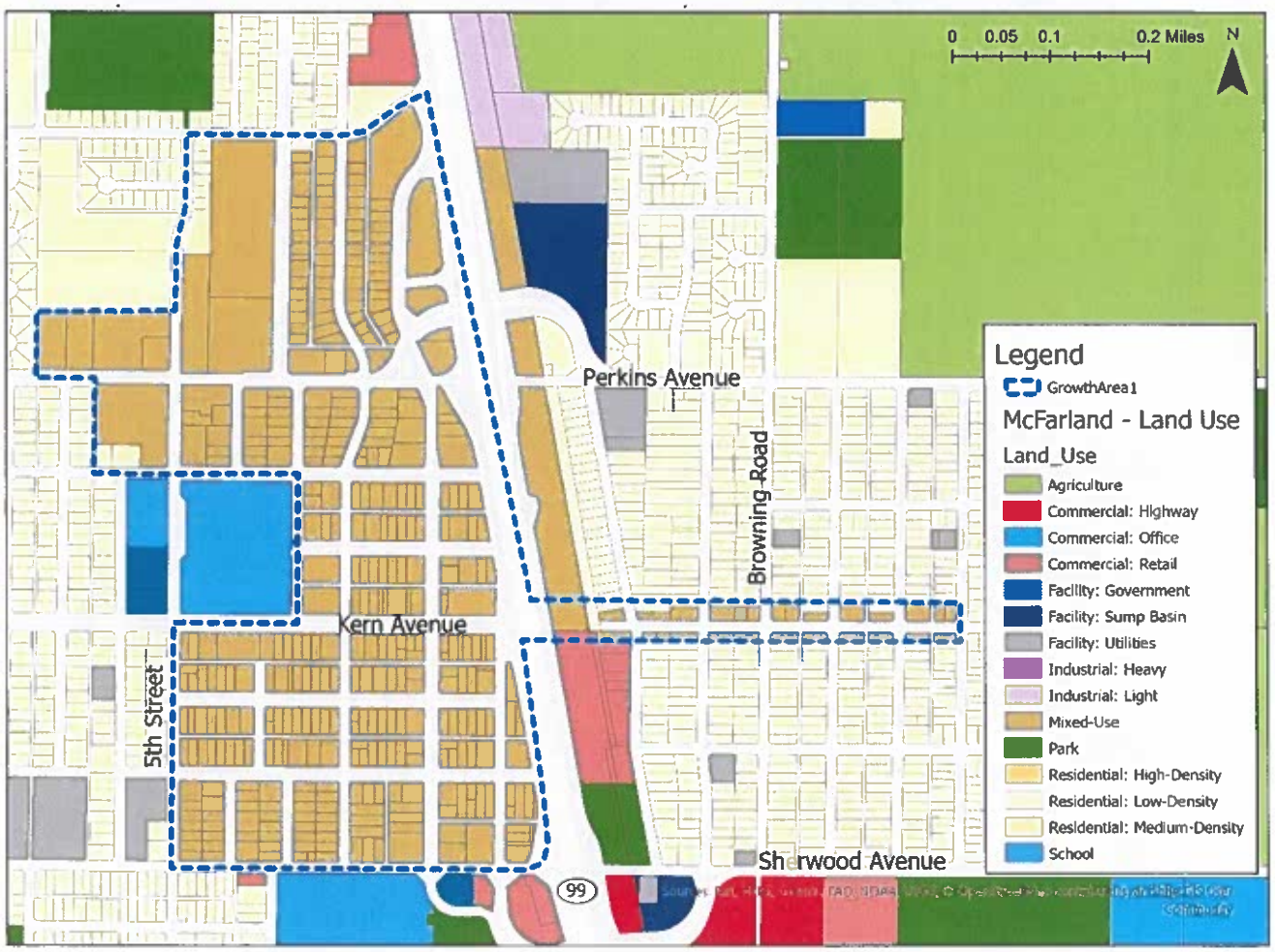


Figure 5-1 shows the existing downtown neighborhood. Figure 5-2 depicts what the area could look like with infill development on vacant parcels on Kern Avenue and surrounding cross streets.

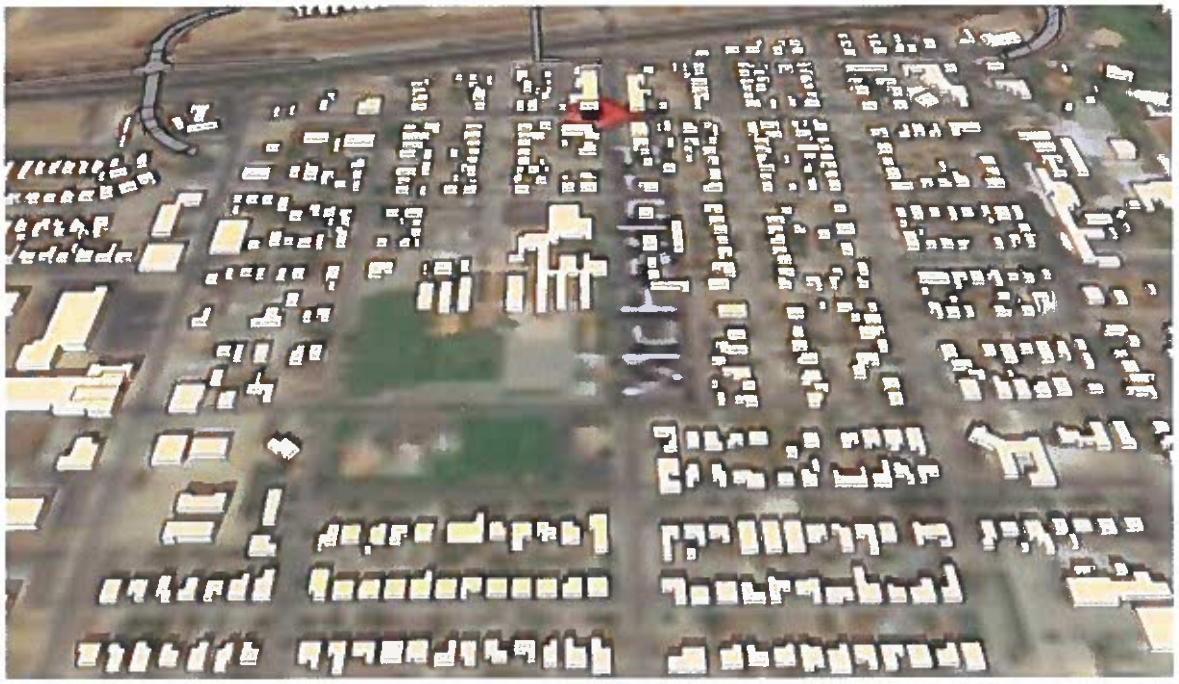


Figure 5-1: Existing downtown.



Figure 5-2: Proposed downtown infill development.

Figure 5-3 shows the existing street view on Kern Avenue downtown. Figure 5-4 depicts what the area could look like in the future with mixed use.



Figure 5-3: Existing street view of downtown.



Figure 5-4: Proposed view of downtown.

Figure 5-5 displays current conditions on the east side of McFarland near the existing Highway 99 and railroad right-of-way. Figure 5-6 envisions improving the vacant space to provide a multi-use pathway for pedestrians and bicyclists to use for recreational and mobility purposes.



Figure 5-5: Existing street view of Kern Avenue, near Highway 99 crossing.

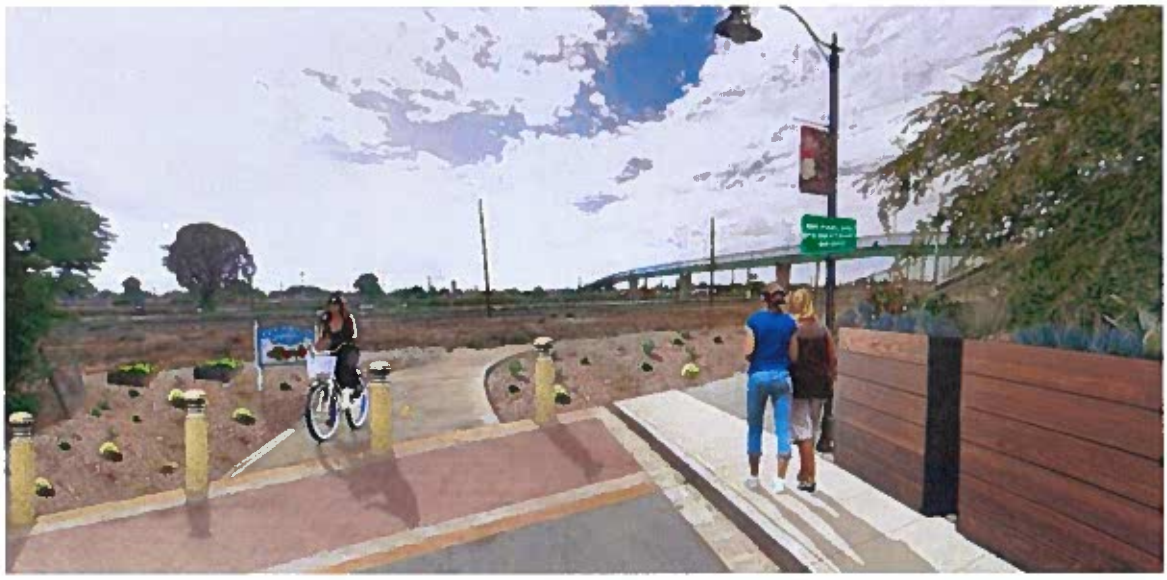


Figure 5-6: Proposed street view of Kern Avenue near Highway 99 crossing.

Figure 5-7 shows the existing conditions on the Sherwood Avenue overpass that spans Highway 99 and the railroad right-of-way with a vantage point towards the east side of McFarland. Figure 5-8 depicts the overpass with improved safety measures for pedestrians as the focal point for street improvements.



Figure 5-7: Existing Highway 99 crossing.



Figure 5-8: Proposed Highway 99 crossing with extended pedestrian and bicyclist barriers.

5.9.2 West Expansion

The West Expansion area is for predominantly residential land use with mixed densities ranging from low-to-high density. In the Preferred Growth Alternative, accommodation for growth can be fulfilled by developing housing opportunities on City land under temporary agricultural use. These lands offer opportunity to provide multiple different housing options for residents of all needs within the City. Map 5-4 displays the West Expansion area of McFarland.

Map 5-4: Preferred Growth Alternative Key Growth Area #2: West Expansion Area

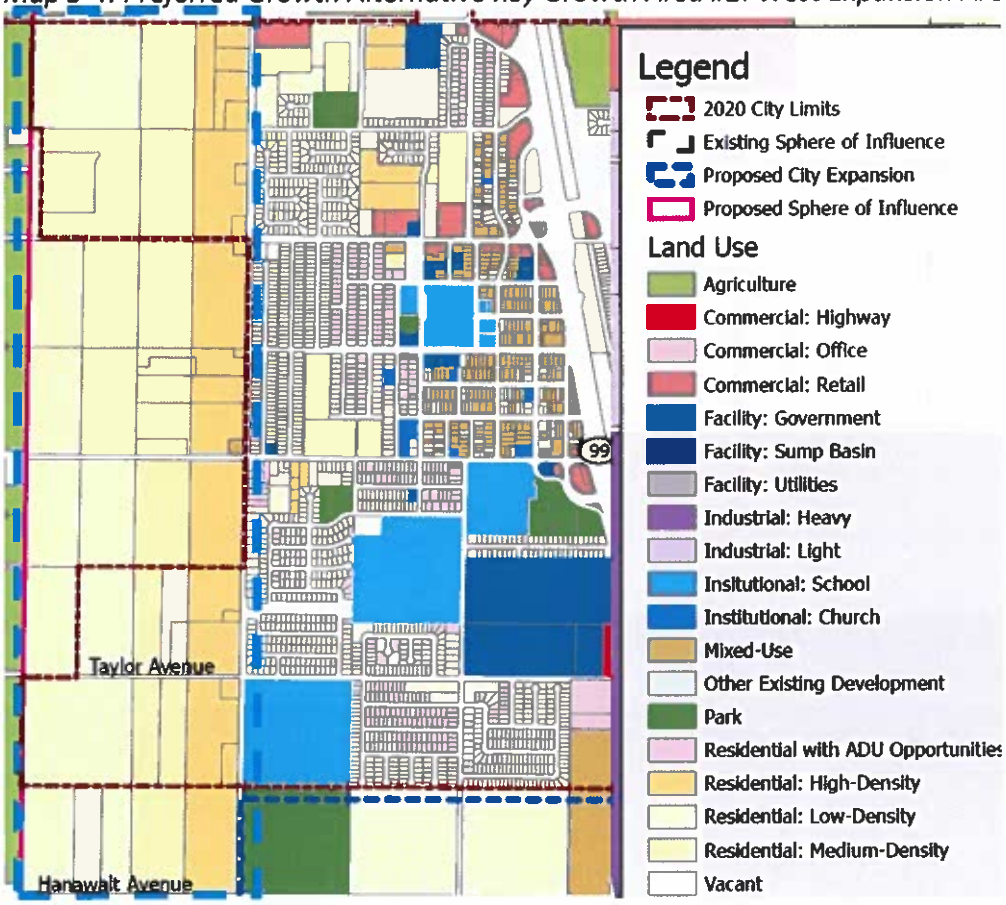


Figure 5-9 displays the existing conditions where expansion is envisioned. At the time of preparing this Plan, this section of the City was under predominantly agricultural use with recent residential developments on the periphery. Figure 5-10 depicts the mixed density neighborhoods envisioned for this section of the City.

Figure 5-11 shows conditions showcasing minimal development with opportunities to expand development on vacant parcels. Figure 5-12 envisions medium-and high-density development with sidewalks to promote pedestrian mobility in the West Expansion Area.



Figure 5-9: Existing West Expansion area.



Figure 5-10: Proposed West Expansion area.



Figure 5-11: Existing Street View of West Expansion area.



Figure 5-12: Proposed Street View of West Expansion area.

5.9.3 Whisler Road Neighborhood

The Whisler Road Neighborhood focuses on developing residential and commercial land uses south of the existing City limits. The area includes housing composed of mixed-density development with low-to-medium and high-density housing options. In addition, commercial uses are to expand convenience in shopping opportunities for residents in its adjoining mixed-use area. To complement the new land uses, open space opportunities are included to provide recreational uses for people within this section of the City. Map 5-5 shows the Whisler Road Neighborhood.

Map 5-5: Preferred Growth Alternative Key Growth Area #3: Whisler Road Neighborhood

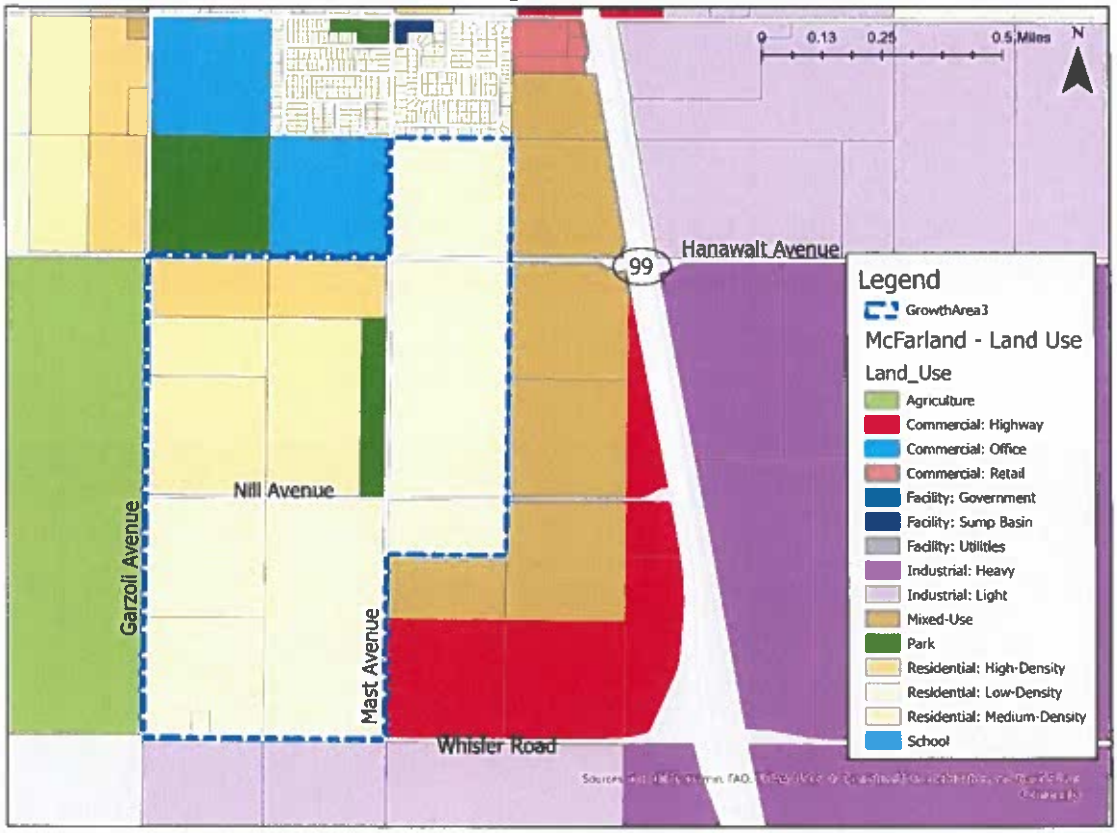


Figure 5-13 displays conditions in the planned Whisler Road Neighborhood. Figure 5-14 displays the commercial and residential uses planned for the development area.

Figure 5-15 provides a view of conditions on Whisler Road which depict low-density residential uses along the road. Figure 5-16 displays complete streets with bike lanes and landscaped sidewalks to accommodate all road users.



Figure 5-13: Existing Whisler Road Neighborhood area.



Figure 5-14: Proposed Whisler Road Neighborhood area.

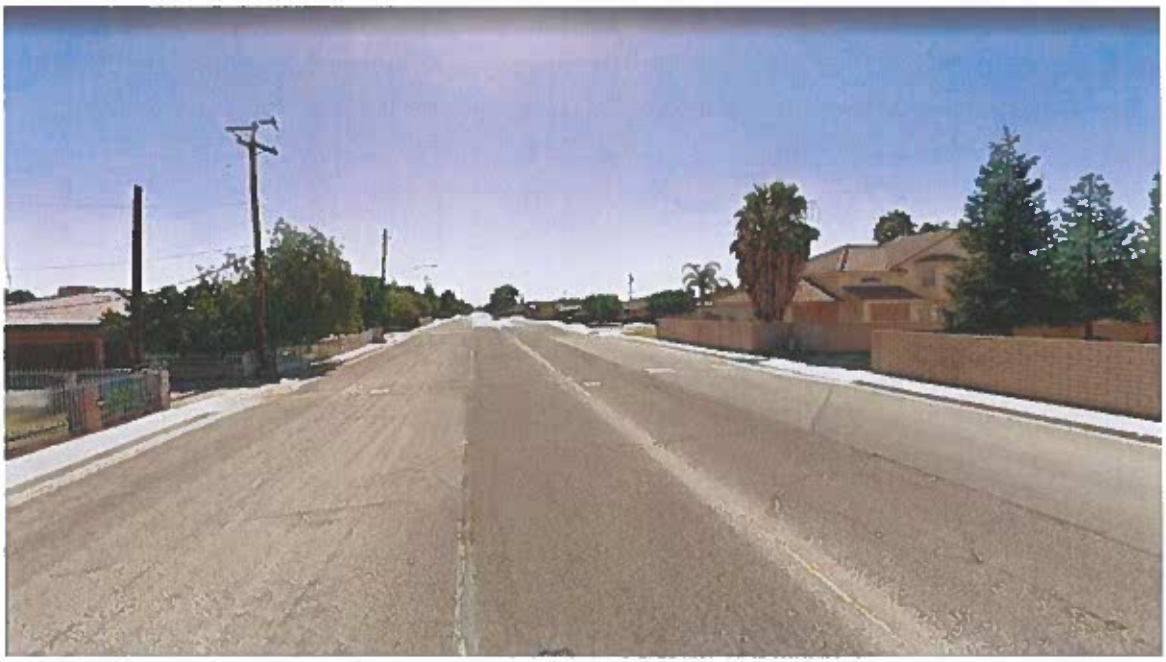


Figure 5-15: Existing street view of Whisler Road Neighborhood.



Figure 5-16: Proposed street view of Whisler Neighborhood.

Figure 5-17 provides a view of the existing conditions on Mast Avenue. Agricultural land uses are dominant on the edges of the City with newer low-density development bordering the existing City limits. Figure 5-18 shows the Preferred Growth Alternative's proposed land uses and street improvements that can transform the Whisler Road Neighborhood into an active residential-dominant neighborhood.



Figure 5-17: Street view of existing conditions on Mast Avenue in the Whisler Road Neighborhood.



Figure 5-18: Proposed street view of Mast Avenue within Whisler Road Neighborhood.

5.9.4 Southern Commercial Corridor

The Southern Commercial Corridor focuses on developing commercial and office uses along Highway 99. The highway serves as a common connector for commercial use areas thereby easing their accessibility for all road users. In addition, expanding available office space in McFarland can further expand commercial opportunities. The commercial and office uses provide new economic opportunities. Map 5-6 shows the Southern Commercial Corridor.

Map 5-6: Preferred Growth Alternative Key Growth Area #4: Southern Commercial Corridor

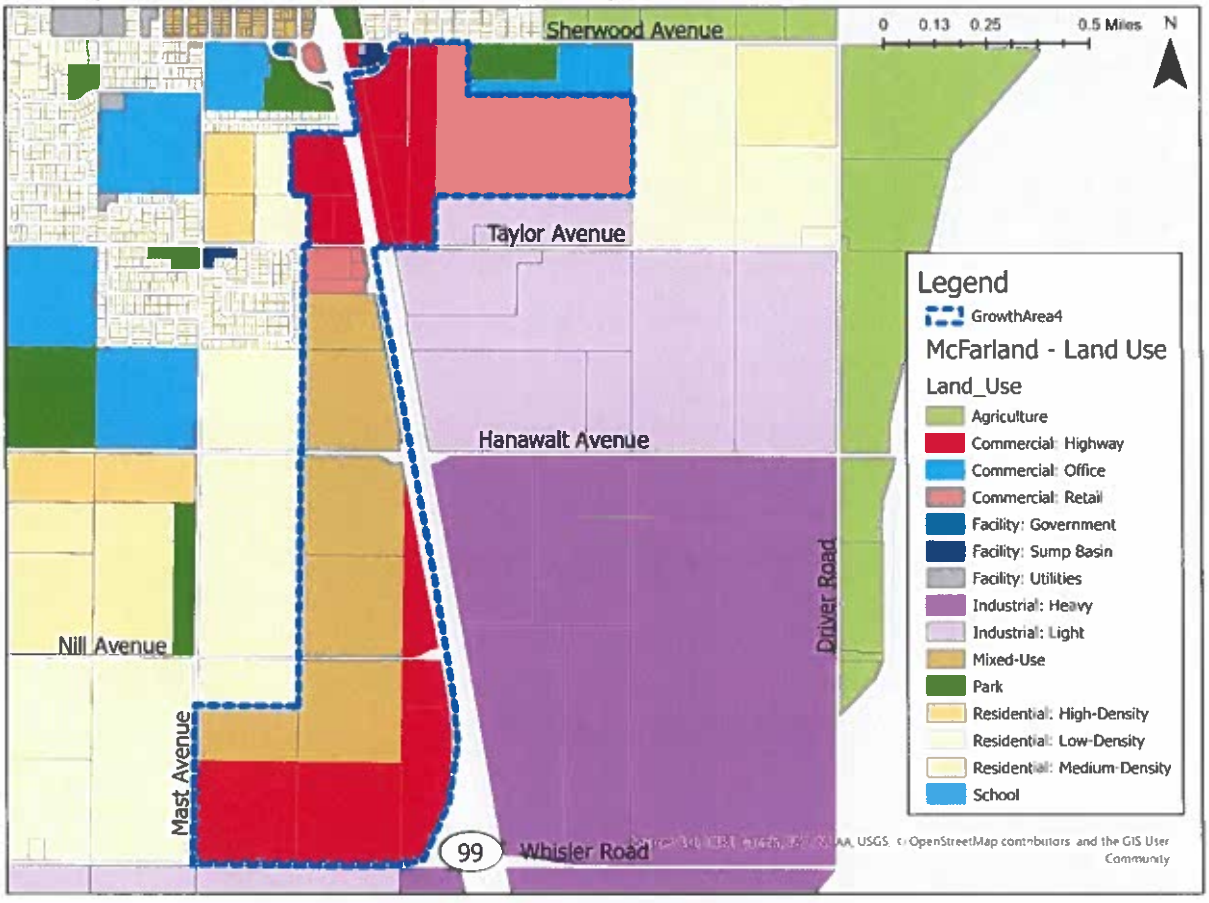


Figure 5-19 shows conditions in this growth area. Low-density homes are prevalent in adjoining neighborhoods. Figure 5-20 displays proposed commercial uses for this section of McFarland which could become an active freeway-adjacent commercial cluster that can expand economic opportunities for the City.



Figure 5-19: Existing Southern Commercial Corridor.



Figure 5-20: Proposed Southern Commercial Corridor.

Figure 5-21 shows conditions within the Southern Commercial Corridor. Figure-5-22 displays the Preferred Growth Alternative's proposed improvements to conditions with commercial uses lining the street and widened sidewalks featuring landscaping and street trees that can improve the quality of the street environment.



Figure 5-21: Existing street view of Southern Commercial Corridor.



Figure 5-22: Proposed street view of Southern Commercial Corridor.

5.9.5 Famoso Industrial and Commercial Center

South of the existing City limits along Highway 99, the Famoso Industrial and Commercial Center offers expansive space for industrial uses in the City. Industrial uses are envisioned to be primarily warehouse-type industries serving freight vehicles. In addition, some commercial uses are to include a variety of establishments to complement the existing highway asset. Map 5-7 shows the Famoso Industrial and Commercial Center.

Map 5-7: Preferred Growth Alternative Key Growth Area #5: Famoso Industrial and Commercial Center

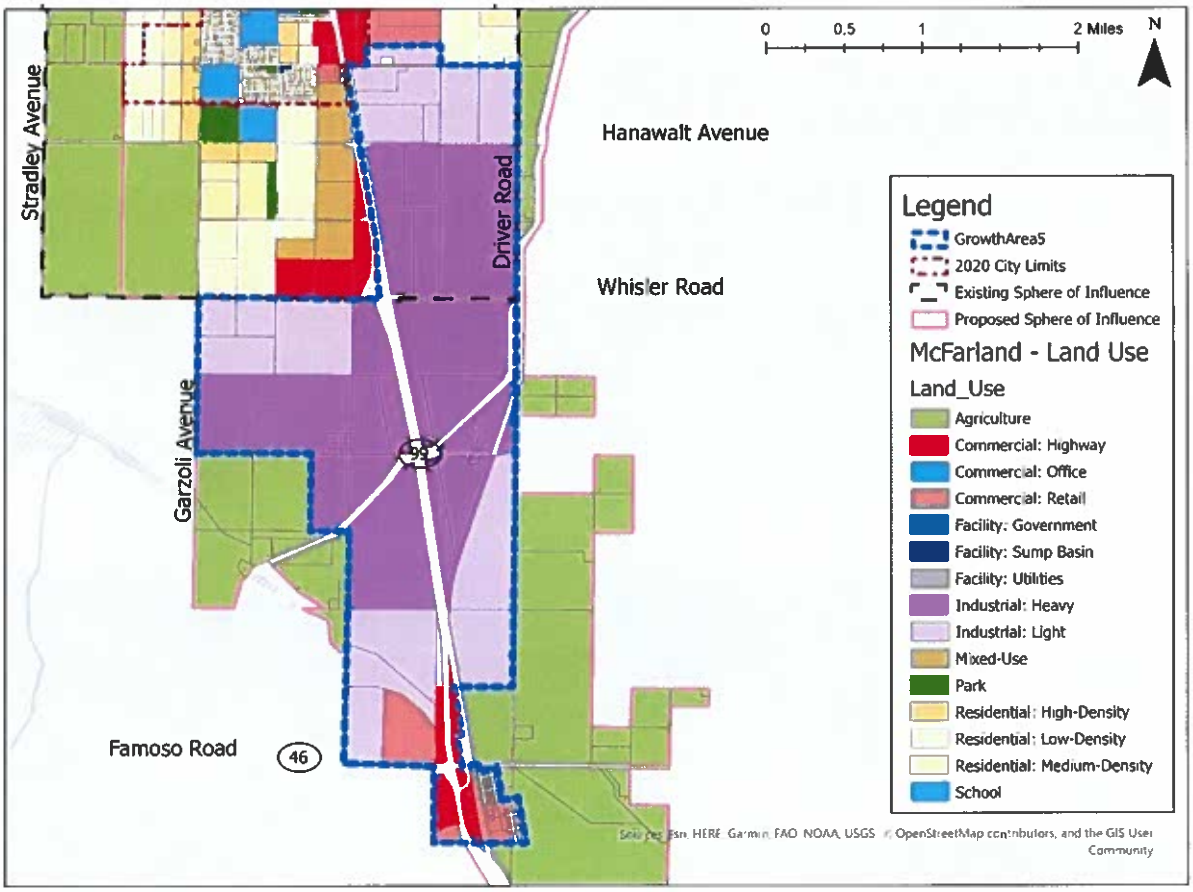


Figure 5-23 shows conditions along Highway 99 where agricultural uses dominate the corridor. Figure 5-24 displays the Preferred Growth Alternative's proposed industrial land uses that have the potential to change the southern-most section of the City's sphere of influence into an economic hub oriented to warehouse industrial uses.



Figure 5-23: Existing development in Famoso Industrial and Commercial Center.



Figure 5-24: Proposed development in Famoso Industrial and Commercial Center.

Figure 5-25 provides a view from street level of the agricultural land uses adjacent to Highway 99. Figure 5-26 provides a view of the Preferred Growth Alternative's proposed industrial warehouse uses that could be developed near Highway 99.



Figure 5-25: Existing street view of Famoso Industrial and Commercial Center.



Figure 5-26: Proposed street view of Famoso Industrial and Commercial Center.

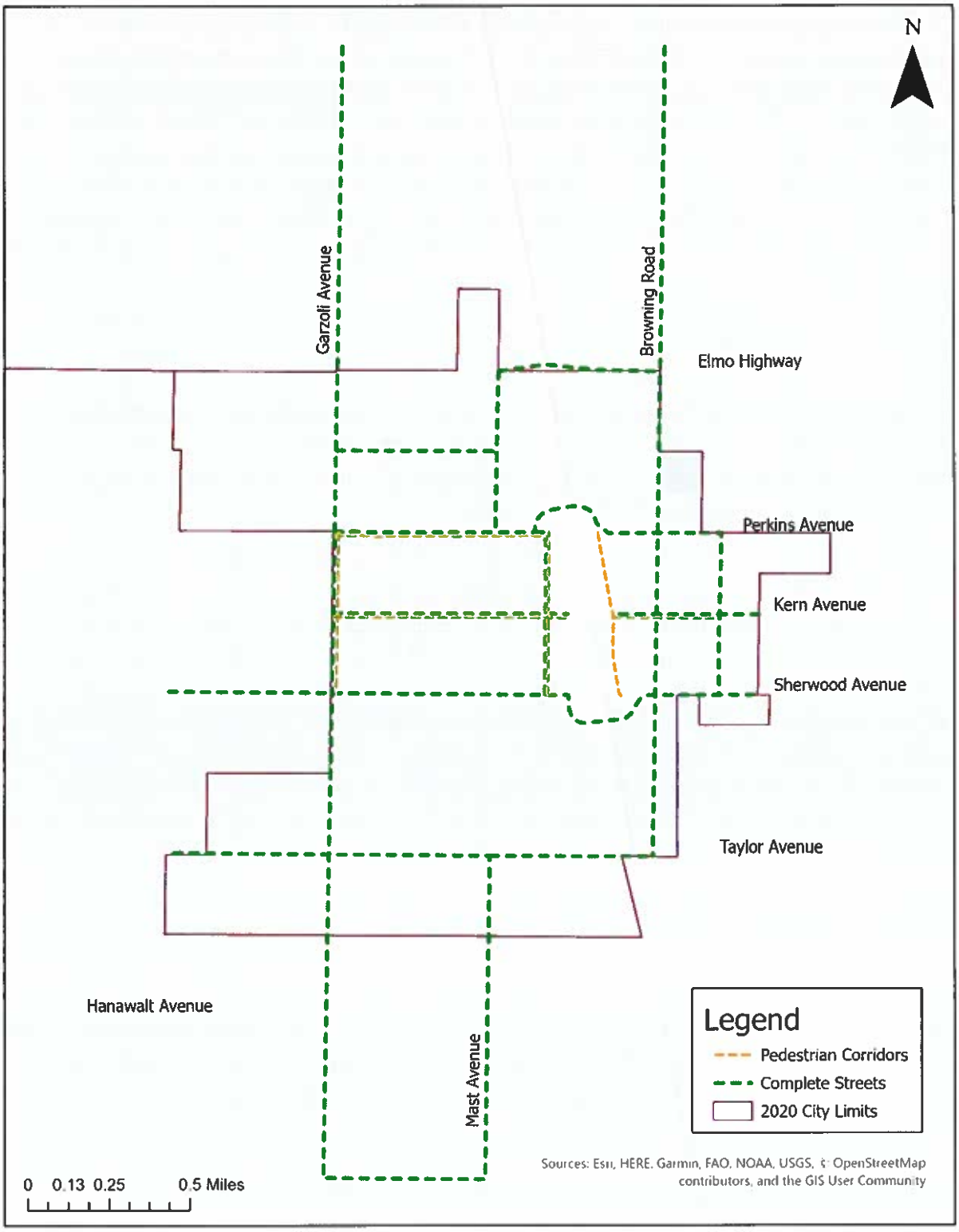
5.10 Circulation

The Preferred Growth Alternative envisions a safe, sustainable, and well-connected transportation network intended for all modes of travel. Improving connections across the community for pedestrians, transit riders, cyclists, and vehicle drivers is the priority. Map 5-8 displays the circulation network under the Preferred Growth Alternative. The alternative is to establish a network of complete streets on major roads with an emphasis on improved pedestrian and bicycle infrastructure. Along Perkins Avenue, clearly delineated Class II bicycle lanes can connect cyclists from downtown to adjacent neighborhoods. East-west connections are created by implementing complete streets, which include bike lanes and widened sidewalks on Elmo Highway, Kern Avenue, and Sherwood Avenue (see examples in Figures 5-15 and 5-16). Some elements of the complete streets can cross over Highway 99 to ensure the complete street corridors provide comprehensive mobility throughout McFarland. In addition, north-south corridors with complete streets include Davis Street, 2nd Avenue, and Mast Avenue on the west side of the City. On the east side of McFarland, complete streets are located on Browning Road and Sherwood Avenue to the south and Peterson Road to the north where new residential communities can be developed. Ensuring all transportation modes can safely use this overpass is to create a connected community.

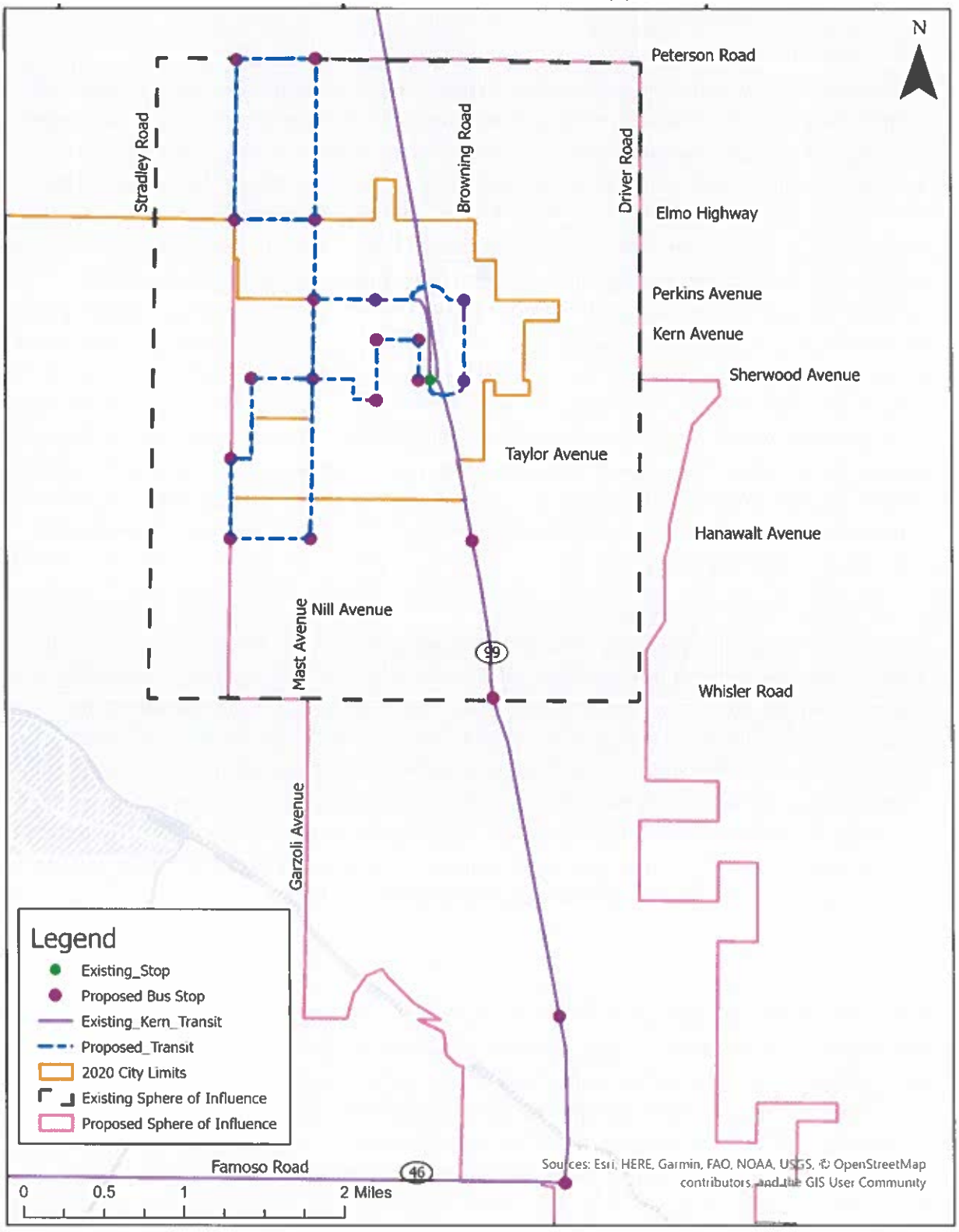
Complete streets are proposed to provide better mobility for pedestrians and cyclists. The expansion of pedestrian corridors is also envisioned to provide clear, articulated pathways for people who walk within the City. Kern Avenue is proposed to be an east-west pedestrian corridor utilizing the pedestrian bridge to connect both sides of McFarland (See Figure 5-5 and 5-6). Connections are also proposed to be improved by extending pedestrian and bicycle barriers on Perkins Avenue, Kern Avenue, and Sherwood Avenue (See Figure 5-7 and 5-8). A multi-use path for both pedestrians and cyclists is planned along the railroad corridor on the east side of McFarland between Perkins Avenue and Sherwood Avenue. Pedestrian corridors include signage for wayfinding purposes and widened sidewalks for ease of access to meet the needs of all sidewalk users.

Map 5-9 displays the transit map under the Preferred Growth Alternative. Two new bus routes (the broken purple line) are to loop through residential neighborhoods, providing extended transit service with increased access to the entire community. Additional bus stops for the Kern Transit regional bus route (the pink line with red bus stop icons) are to complement proposed service increases for Kern Transit bus routes that connect McFarland to neighboring cities. The extended routes wind through the entire community, including the Downtown Infill, West Expansion, and the Whisler Road Neighborhood. A bus route is also extended to the existing neighborhood east of Highway 99.

Map 5-8: Active transportation circulation map for McFarland



Map 5-9: Public transportation circulation map for McFarland



5.11 Outcomes

5.11.1 Residential Potential

The Preferred Growth Alternative prioritizes expanding housing options for various household sizes under the population target for 2040. Besides growth in population, it is estimated that approximately half of all new housing units would need to be affordable by 2040. These new housing units are proposed in the form of high, medium, and low-density; mixed-use; and accessory dwelling units (ADUs) throughout the City and outside of the City limit within the SOI. As shown in the Conceptual Land Use Map 5-1, residential growth is focused on the central city as well as near the western and southern boundaries of City limits. In the West Expansion, high-density residential and mixed-use developments are proposed along Garzoli Avenue to accommodate low-income or small size households. Outside of the City limits, medium-density residential, such as townhouses, and low-density residential, such as single-family houses, are proposed for medium-income to high-income households and larger households that prefer the serene neighborhoods. In the downtown, infill development of underutilized and vacant parcels is proposed to densify the City and create a vibrant downtown. Finally, accessory dwelling units (ADUs) are proposed throughout the City to create more affordable units for small households or elderly family members. Data analysis using building footprints and parcel sizes revealed the potential for approximately 1,300 ADUs within the City. The Plan overall can accommodate more than 33,000 dwelling units.

5.11.2 Economic Potential

The Preferred Growth Alternative is based on an aggressive growth target of 17,195 jobs by 2040. To achieve this job target, the Plan allocates total space more than 1,030 acres to commercial land. The Conceptual Land Use Map, Map 5-1, shows the distribution of the required commercial land through mixed-uses within the City, larger general and highway commercial areas in the south of the City, industrial acreage to the south, and highway commercial activities near Highway 99 interchanges at Whisler Road and Famoso Road. Achievement of this level of new commercial development can shift the employment base from predominantly agriculture to include retail, industrial, office, and visitor-focused or traveler-oriented service jobs and ultimately increase revenue for the City.

5.12 Anticipated Effects

5.12.1 Land Use

The Preferred Growth Alternative proposes changes to the Land Use Element to meet community growth targets and City needs in a way that would maintain McFarland's small-town character. This is achieved by concentrating commercial and residential infill development within the downtown, adding commercial and industrial development along the City's boundaries, and utilizing accessory dwelling units throughout. It provides for a balanced mix of land uses with a full range of housing types, mixed-use development downtown and at critical nodes along major corridors, and vibrant commercial and industrial development along Highway 99 to support job growth. New, strategic infrastructure upgrades are to discourage

leapfrog development and promote a compact urban form while promoting proper transitions and buffering between incompatible land uses.

5.12.2 Circulation

The circulation network for the Preferred Growth Alternative is aimed at creating a safe, efficient, sustainable, and equitable transportation environment in McFarland. This includes improving pedestrian and bicycle infrastructure with multi-use trails and pedestrian corridors, creating complete streets, adding intracity transit routes and service, and adding more regional transit stops to improve access to bus services with neighboring cities. These features are anticipated to give reliable alternative transportation options for people without access to private vehicles including the youth, elderly, and disabled. For convenience, alternative transportation modes, bicycle lanes, and pedestrian pathways are to connect with public transit. The transportation network can turn the City into walkable, bikeable, and transit-friendly place.

5.12.3 Housing

Housing in the Preferred Growth Alternative focuses on maintaining affordability within the City's housing stock, increasing mixed-use residential development downtown, and developing more variety of housing options for residents. These efforts focus within the downtown, west and south areas of the City.

5.12.4 Conservation

In order to help mitigate increased demand for natural resources during expansion, the Preferred Growth Alternative recommends decreasing water and energy demand within existing systems, substituting turf and water reliant vegetation with drought tolerant vegetation and equipping areas with high sun exposure with solar panels. Additionally, educating the public on water and energy reduction strategies can help offset the increasing demand for resources as McFarland expands.

Since there are several threatened and endangered species within Kern County, steps should be taken not to disturb their presence. A trained specialist should check for the San Joaquin Kit Fox, Tricolored Black Bird, Swainson's Hawk and Burrowing Owl before development occurs.

5.12.5 Open Space

The Preferred Growth Alternative is to distribute additional recreational open space so that neighborhoods are generally within a 1.5-mile reach of a park. The additions of recreational space are to go to the West Expansion area and the Whisler Road Neighborhood. The selection of these areas of McFarland for growth is in part due to the significantly fewer parcels of Williamson Act lands to the west of the City. Additionally, the Circulation Element includes pedestrians and cycling improvements to connect homes with recreational facilities. These additions are to help McFarland maintain its strong community core.

5.12.6 Safety

The Preferred Growth Alternative takes into consideration flooding and other natural disasters. It moves new residential development outside of the 100-year floodplain. Floodplain areas slated for industrial and highway commercial development are to be appropriately mitigated. Implementation of the Storm Drain Master Plan can assist this mitigation. New development is to conform to uniform state and national codes for fire and seismic hazards.

5.12.7 Noise

The Preferred Growth Alternative aims to reduce the main sources of noise: Highway 99 and the railroad. Development of sensitive receptors within the 65-decibel contour around these sources is to be restricted, and those within the 60-decibel contour are to have mitigation measures to limit noise levels. The potential for a sound barrier or sound wall is to be explored, which would help reduce noise levels in existing sensitive areas near Highway 99 and the railroad. Future industrial and commercial uses are to be located so that they do not cause excessive noise for existing sensitive receptors.

5.12.8 Public Facilities

Full build-out under the Preferred Growth Alternative may require additional staffing for police and fire services to maintain proper public safety response times and level of service. Population increase could increase student enrollment requiring new schools and park space. Major development is concentrated on the west side of McFarland which has the utility capacity to support it. Continuing to monitor water quality is important as the community continues to grow. Although McFarland's potable water resources are sound, it may be difficult to expand facilities requiring increased conservation. The sewer treatment plant is undergoing expansion in its processing capacity making room for expansion on the west side of the City.

5.12.9 Economic Development

The Preferred Growth Alternative uses infill and mixed-use redevelopment to revitalize the downtown, bringing commercial activity and jobs. The mixed-use development allows residents to live within walking distance of stores, eateries, and other services. The land allocated for highway commercial use along Famoso Road is situated to capture revenue from pass-through traffic and events at the Famoso Raceway. The large amounts of land dedicated to industrial and commercial use can make McFarland an inviting destination for economic development. Through these changes, McFarland can become a regional destination, providing mechanisms for increased revenue streams into the community.

5.12.10 Community Design

Community Design aims to improve the overall vibrancy, identity, and cohesion of McFarland. In the Preferred Growth Alternative, Community Design focuses on the creation of a City that is both attractive and functional. Development focuses on the downtown neighborhood and features complete streets accessible to all road users. Improved signage, crossings, and lighting are to contribute to improved safety and comfort within the City. Landscaping and entryways

are to promote methods of wayfinding and improve the aesthetic appearance of McFarland. Design standards can work towards the creation of a uniform image for McFarland to attract visitors and please residents.

5.12.11 Health

The Preferred Growth Alternative prioritizes Health in McFarland by increasing accessibility to healthy foods and grocery options and implementing new recreational opportunities in the form of open and green spaces, as well as encouraging provision of additional medical services within the City; e.g., a community health center along Browning Road adjacent to the park. These features can improve the quality of life for residents. With the implementation of health-related programs would foster healthy lifestyle choices, such as walking, bicycling, choosing healthy food options, and outdoor activities in open and green spaces.

5.12.12 Environmental Justice

The anticipated effects of the Environmental Justice Element include the fostering of a community where residents and visitors are protected from environmental hazards and risks, with an emphasis on the impact of agricultural and noise pollution. McFarland's transportation network can provide alternatives to travel by car through the incorporation of walking, biking, and transit infrastructure. The needs and voices of minority and low-income community members are to be directly engaged in the planning process, especially regarding environmental decision-making.

5.12.13 Air Quality

The Preferred Growth Alternative may result in an increase in air pollution and greenhouse gas (GHG) emissions as the population grows and development increases. However, the alternative presents many strategies that can reduce per capita pollutants and GHG emissions, such as increasing accessibility and connectivity for pedestrians and bicyclists, investing in renewable energy, and improving public transit. Keeping the main form of McFarland compact with infill development, building mixed-use commercial, and neighborhood commercial areas can increase opportunities to walk or bike and thereby reduce greenhouse gas emissions and help combat climate change. In addition, the Preferred Growth Alternative seeks to educate the community about air quality conditions and actions residents may take to address the issue. Outreach efforts include making public data on air quality monitoring and hosting regular community meetings to discuss air quality conditions and mitigation measures.

5.12.14 Sustainable Agriculture

McFarland's primary resource is the vast agricultural lands that surround the City. Under the Preferred Growth Alternative, some urban lands under temporary agricultural use are to be returned to development to accommodate the growth of residential, commercial, industrial, highway commercial, and recreational open space. To the south of the City, some agricultural lands are to be converted to commercial use to boost the City's aspirations for job growth but narrowing the SOI on the upper west side compensates with conservation of prime farmland.

6. LAND USE

6.1 Introduction

The Land Use Element provides a guide for future development and growth for planners, developers, decision-makers, and the public. To so, the Land Use Element designates the location, distribution, and intensity of housing, industry, agriculture, public facilities and buildings, recreational facilities, educational facilities, and waste management facilities. In correlating all land use issues into one set of clear development policies, the Land Use Element is the most representative of the General Plan and establishes the land use conditions for all other elements.

In McFarland, the 2019 land use inventory identified 6% of the acreage within the City (76.98 acres) as vacant, which allows for a variety of development opportunities. The remaining acreage in the City was distributed according to the following shares:

- 36% residential
- 29% institutional
- 24% agriculture
- 3% parks
- 2% commercial
- 1% industrial

The City of McFarland has also annexed additional 74.4 acres to the west and 135.33 acres south to Whisler Road. These annexations offer additional opportunities for development.

Community feedback collected during the drafting stages of the General Plan indicated a desire for a well-balanced and diverse mix of residential, open space, commercial, and industrial uses while maintaining McFarland's small-town atmosphere. The following goals, objectives, policies, and programs reflect McFarland's community needs and desires in relation to land use.

6.2 Goals, Objectives, Policies, and Programs

Goal LU 1: A well-balanced mix of uses.

Objective LU 1.1: Provide a full range of housing types, densities, and locations.

Policy LU 1.1.1: Expand the range of allowable housing types and areas in which they may be built.

Program LU 1.1.1.1: Allow increased density near the downtown core and commercial centers.

Program LU 1.1.1.2: Create inclusionary zoning for new construction to include a portion of affordable units.

Program LU 1.1.1.3: Remove regulatory obstacles that have the effect of rendering various housing types uneconomical, such as unnecessary onerous parking per residential unit.

Program LU 1.1.1.4: Allow and facilitate accessory dwelling units (ADUs).

Objective LU 1.2: Focus mixed-use development.

Policy LU 1.2.1: Pursue regulatory and investment strategies that promote a healthy mix of uses (e.g. retail, residential, office, and public facilities) in the downtown core.

Program LU 1.2.1.1: Establish residential-commercial mixed uses downtown.

Program LU 1.2.1.2: Provide standards for mixed-use development in the downtown core.

Program LU 1.2.1.3: Reduce parking requirements for new mixed-use commercial and residential development in the downtown core.

Policy LU 1.2.2: Pursue regulatory and investment strategies that change the mix of uses over time in areas identified as future development sites.

Program LU 1.2.2.1: Establish strategic mixed-use nodes of commercial and office uses to serve nearby neighborhoods along Garzoli Avenue at Perkins, Sherwood, and Taylor Avenues and along East Kern Avenue.

Objective LU 1.3: Provide vibrant commercial and industrial development along Highway 99.

Policy LU 1.3.1: Develop compatible industrial, commercial, and other uses along Highway 99.

Program LU 1.3.1.1: Work with landowners to assemble parcels near the highway for new development.

Program LU 1.3.1.2: Extend infrastructure.

Program LU 1.3.1.3: Create and implement a specific plan for the job expansion area along Highway 99.

Policy LU 1.3.2: Promote new industrial development along Highway 99.

Program LU 1.3.2.1: Establish a list of administerial approved Industrial uses along the Highway 99 corridor.

Objective LU 1.4: Protect open space.

Policy LU 1.4.1: Preserve open space in new residential developments.

Program LU 1.4.1.1: Use Transfer of Development Rights (TDR) to promote the protection of open space and sensitive natural areas.

Program LU 1.4.1.2: Prioritize development in areas that can accommodate infill development.

Objective LU 1.5: Upgrade infrastructure to support convenient circulation between land uses.

Policy LU 1.5.1: Devise and deliver service and infrastructure tactics which reflect local priorities.

Program LU 1.5.1.1: Provide necessary sidewalk maintenance and improvements.

Program LU 1.5.1.2: Design infrastructure that meets local priorities and enables improved and additional services and activities.

Program LU 1.5.1.3: Improve street or pathway connections to resources, services, activities, and each other.

Program LU 1.5.1.4: Market land that is "project ready" for industrial growth for areas with appropriate infrastructure, access, and attributes.

Policy LU 1.6.1: Coordinate development with availability and expansion in public facilities and services.

Program LU 1.6.1.1: Create in-lieu fees for development to pay for additional public facility needs brought on by the development.

Goal LU 2: Compact urban form.

Objective LU 2.1: Restrict land use patterns that promote urban sprawl.

Policy LU 2.1.1: Increase the amount of infill development in the City.

Program LU 2.1.1.1: Allocate investments in infrastructure to support private investment and development.

Program LU 2.1.1.2: Streamline the permitting process for infill development.

Policy LU 2.1.2: Prohibit leapfrog development.

Program LU 2.1.2.1: Encourage new development and annexation projects to be contiguous to City limits.

Program LU 2.1.2.2: Develop urban growth boundaries.

Policy LU 2.1.3: Focus future commercial development in existing commercial corridors.

Program LU 2.1.3.1: Develop streamlined permitting process for designated commercial uses along Kern Avenue, Perkins Avenue, Garzoli Avenue, and Sherwood Avenue.

Objective LU 2.2: Develop walkable and pedestrian-friendly streets.

Policy LU 2.2.1: Accommodate automotive and non-motorized vehicle users safely.

Program LU 2.2.1.1: Adopt guidelines for mixed-use, high intensity nodes.

Program LU 2.2.1.2: Increase density around transit stops.

Program LU 2.2.1.3: Situate parking to enhance the pedestrian environment and facilitate access between destinations.

Program LU 2.2.1.4: Use trees and other green infrastructure to provide shelter, beauty, urban heat reduction, and separation from automobile traffic.

Goal LU 3: Compatible land uses.

Objective LU 3.1: Establish proper transitions and buffering between different land uses.

Policy LU 3.1.1: Reduce conflicts between incompatible land uses.

Program LU 3.1.1.1: Establish mandatory distances between land uses to conform with the standards for complementary uses, such as parks, active commercial areas, public facilities, and housing.

Program LU 3.1.1.2: Introduce transitional uses or spaces between conflicting uses (e.g. multifamily between single family and commercial, park/open space areas).
Program LU 3.1.1.3: Establish requirements for landscaping, buffering, screening, air quality, noise, odor, light, and traffic.

7. CIRCULATION

7.1 Introduction

The Circulation Element plans for a balanced multimodal transportation network that accommodates all users and modes on McFarland's streets and highways. State law defines road users as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. A multimodal network has a critical impact on efficient traffic flow, public health, safety, economic activity, and development patterns within a city. Additionally, the Circulation Element must provide the basis for planning, designing, and building complete streets per the California Complete Streets Act of 2008. Lastly, the Circulation Element addresses major roads, transportation routes, terminals, and other public facilities, services, and utilities in McFarland. Due to circulation's relative impacts on physical development patterns, State law also requires that the Circulation Element correlate directly with the Land Use Element. This chapter presents the goals, objectives, policies, and programs to develop an effective circulation system that addresses the needs of McFarland community members.

7.2 Goals, Objectives, Policies, and Programs

Goal CIR 1: A safe, comfortable, and aesthetically pleasing transportation system.

Objective CIR 1.1: Improve pedestrian infrastructure.

Policy CIR 1.1.1: Connect sidewalks and other pedestrian infrastructure.

Program CIR 1.1.1.1: Identify and prioritize gaps in the pedestrian network for infrastructure improvements.

Policy CIR 1.1.2: Prioritize funding to improve and maintain pedestrian infrastructure for users.

Program CIR 1.1.2.1: Adapt Complete Streets Guidebook for local use.

Program CIR 1.1.2.2: Comply with the Americans With Disabilities Act of 1990 standards for sidewalk widths, grades, curbs, and corner ramps.

Program CIR 1.1.2.3: Seek funding from federal and state sources.

Program CIR 1.1.2.4: Prioritize funding on Highway 99 pedestrian crossings.

Objective CIR 1.2: Improve bicycle infrastructure.

Policy CIR 1.2.1: Connect all bicycle infrastructure.

Program CIR 1.2.1.1. Establish separated bike lanes on Garzoli Avenue, Mast Avenue, Sherwood Avenue, Kern Avenue, and Browning Road to connect McFarland's southern neighborhoods with its downtown, eastern, and northern neighborhoods.

Policy CIR 1.2.2: Encourage inclusion of bicycle parking facilities in new development.

Program CIR 1.2.2.1: Amend development code to include bicycle parking requirements.

Objective CIR 1.3: Provide traffic calming in selected areas of the community.

Policy CIR 1.3.1: Develop traffic calming strategies in accordance with accepted traffic standards.

Program CIR 1.3.1.1: Implement traffic calming strategies deemed as necessary from traffic studies at select locations to include raised crosswalks, speed tables, or pedestrian flashing beacons.

Objective CIR 1.4: Improve road infrastructure.

Policy CIR 1.4.1: Develop a "Safe Routes to School" initiative.

Program CIR 1.4.1.1: Map safe pedestrian and bicycle routes to schools in McFarland.

Objective CIR 1.5: Provide a supportive environment for active transportation users.

Policy CIR 1.5.1: Improve safety for pedestrian and bicyclists at all intersections and/or corridors with a history of collisions.

Program CIR 1.5.1.1: Develop and implement traffic strategies that reduce accidents.

Program CIR 1.5.1.2: Increase enforcement of traffic laws in areas with high conflict between transportation modes.

Goal CIR 2: An integrated, multimodal transportation system.

Objective CIR 2.1: Improve the local and regional transit network.

Policy CIR 2.1.1: Improve connections between local and regional transit routes.

Program CIR 2.1.1.1: Work with Kern Transit to develop a program to increase accessibility and ridership.

Program CIR 2.1.1.2: Promote Dial-a-Ride service as a convenient alternative to the private vehicle.

Program CIR 2.1.1.3: Extend operation hours for Dial-a-Ride service into evening and weekend hours.

Objective CIR 2.2: Improve connections and accessibility for all modes of transportation including walking, bicycling, and public transit.

Policy CIR 2.2.1: Implement a balanced, multi-modal transportation network in accordance with Complete Street requirements.

Program CIR 2.2.1.1: Update the City's street and subdivision standards to include Complete Streets strategies.

Policy CIR 2.2.2: Improve accessibility for all ages and needs.

Program CIR 2.2.2.1: Work with transit providers to provide curb-to-curb service for all users, including mobility-impaired populations.

Program CIR 2.2.2.2: Coordinate with transit providers to lower fares for low-income, student-aged youth, elderly, and disabled people.

Goal CIR 3: A sustainable transportation system.

Objective CIR 3.1: Reduce Vehicle Miles Traveled (VMT).

Policy CIR 3.1.1: Implement vehicle miles travel reduction strategies.

Program CIR 3.1.1.1: Develop and adopt VMT reduction strategies to meet state standards.

Program CIR 3.1.1.2: Place jobs and services close to housing to reduce vehicle usage and community wide VMT.

Objective CIR 3.2: Increase pedestrian and bicycle mode share.

Policy CIR 3.2.1: Expand access to non-motorized transportation.

Program CIR 3.2.1.1: Seek and prioritize funds for pedestrian and bicycle-friendly streets projects.

Objective CIR 3.3: Develop infrastructure to support zero-emission transportation.

Policy CIR 3.3.1: Support adoption of zero-emission and low-emission vehicles.

Program CIR 3.3.1.1: Standardize infrastructure regulations for public electric vehicle charging stations.

Program CIR 3.3.1.2: Streamline the permit process for private electric vehicle charging stations (including home charging stations).

Program CIR 3.3.1.3: Provide facilities such as advanced fueling stations (e.g., electric and hydrogen) for emerging technologies.

Goal CIR 4: An equitable transportation system.

Objective CIR 4.1: Provide access to jobs and services.

Policy CIR 4.1.1: Expand the bus pass program.

Program CIR 4.1.1.1: Work with Kern Transit to target transit-dependent residents with discounted bus passes.

Policy CIR 4.1.2: Increase existing service area coverage.

Program CIR 4.1.2.1: Establish new transit stops in residential and commercial neighborhoods to provide transit access within a ¼ mile radius.

Objective CIR 4.3: Improve connectivity between the east and west side of the City.

Policy CIR 4.3.1: Install pedestrian and bicycle safety measures across Highway 99 crossings.

Program CIR 4.3.1.1: Install bright lighting on Highway 99 crossings on Kern Avenue, Perkins Avenue, and Sherwood Avenue.

Program CIR 4.3.1.2: Extend pedestrian and bicycle barriers on highway crossings on Perkins Avenue, Kern Avenue, and Sherwood Avenue.

8. HOUSING

8.1 Introduction

The Housing Element describes the socio-economic profile of the population and identifies opportunities for safe and affordable housing to meet the needs of all income groups. The policy framework in this Housing Element addresses state legislative housing requirements and reflect the housing needs and desires of McFarland residents.

The most aggressive target for population growth in McFarland is 33,220 by the year 2040. Based on this projection, the City would need additional 7,550 housing units by 2040 to accommodate the growth in population. Half of the new housing needs to be affordable. During the planning process, community feedback indicated an interest in maintaining affordability within the City's housing stock, increasing mixed-use residential development downtown, and developing an increased variety of housing options for residents. The following goals, objectives, policies, and programs reflect these desires and outline a strategy for increased housing development.

8.2 Goals, Objectives, Policies, and Programs

Goal HO 1: High-quality residential neighborhoods.

Objective HO 1.1: Maintain McFarland's existing housing stock.

Policy HO 1.1.1: Preserve existing housing stock, including affordable housing stock, through City regulations and other forms of assistance.

Program HO 1.1.1.1: Continue the Housing Code Enforcement Program.

Program HO 1.1.1.2: Adopt Sustainable Design Guidelines, which give guidance on sustainable design principles such as sustainable energy usage, water conservation, and utilization of reusable building materials.

Program HO 1.1.1.3: Develop brochures for community residents with information about home maintenance.

Objective HO 1.2: Beautify and maintain neighborhoods.

Policy HO 1.2.1: Expand financial assistance for residents in-need to be used for home rehabilitation.

Program HO 1.2.1.1: Continue the City's Home Rehabilitation Program by providing loans to low-income homeowners funded by grants such as the Community Development Block Grant (CDBG).

Program HO 1.2.1.2: Seek additional funding sources for the City's Home Rehabilitation Program.

Policy HO 1.2.2: Maintain quality and sanitation of neighborhoods.

Program HO 1.2.2.1: Conduct community clean-up days several times a year to maintain the quality and sanitation of neighborhoods.

Objective HO 1.3: Develop housing units to meet regional housing need allocation targets with at least 4,500 units through 2040.

Policy HO 1.3.1: Accommodate the City's housing need over the life of the General Plan.

Program HO 1.3.1.1: Expand housing to the west of the City away from floodable areas.

Program HO 1.3.1.2: Establish mixed-use development options in the downtown, along Kern Avenue on the east side, and south of the City, off Highway 99.

Policy HO 1.3.2: Establish modified procedures to streamline permit processing.

Program HO 1.3.2.1: Develop brochures for community residents that give information about various permit processes.

Policy HO 1.3.3: Locate new residential developments near amenities such as grocery stores, public parks, and schools.

Program HO 1.3.3.1: Increase residential density downtown, in the residential expansion west of Garzoli Avenue from Elmo Highway to Taylor Avenue.

Goal HO 2: Equal housing opportunities for all community members.

Objective HO 2.1: Develop special needs housing for large families, the elderly, disabled persons, and farmworkers.

Policy HO 2.1.1: Integrate special needs housing into developments or neighborhoods of conventional housing.

Program HO 2.1.1.1: Provide regulatory and/or financial incentives to interested developers to facilitate the construction of special needs housing.

Policy HO 2.1.2: Provide housing opportunities for disabled persons in compliance with Title 24 of the California Health and Safety Code.

Program HO 2.1.2.1: Revise the building codes to include "universal design" requirements, such as lever door handles and wider doors and hallways.

Policy HO 2.1.3: Enforce fair housing laws.

Program HO 2.1.3.1: Provide community residents with information about housing opportunities and fair housing laws and programs that allow for equal housing access.

Program HO 2.3.3.2: Develop bilingual brochures in English and Spanish for City residents to give information about housing opportunities and fair housing laws.

Program HO 2.1.3.3: Continue the City's Fair Housing Program.

Program HO 2.1.3.4: Distribute the booklet "Fair Housing: It's Your Right" to community residents, which provides information on fair housing.

Objective HO 2.2: Provide a variety of housing types to meet diverse community needs.

Policy HO 2.2.1: Facilitate non-traditional housing types and options, including co-housing, assisted living facilities, and live-work spaces.

Program HO 2.2.1.1: Create development standards for non-traditional types of housing development, such as assisted living for seniors.

Policy HO 2.2.2: Provide housing alternatives to community residents.

Program HO 2.2.2.1: Develop housing of a variety of sizes and densities.

Program HO 2.2.2.2: Encourage multi-family developments to provide a variety of dwelling sizes.

Objective HO 2.3: Provide housing financial assistance to community members in need.

Policy HO 2.3.1: Assist community residents who are interested in homeownership.

Program HO 2.3.1.1: Continue the First-Time Home Buyer (FTHB) program to assist low-income families who are first-time home buyers or displaced homeowners.

Policy HO 2.3.2: Provide rental assistance to low income households in collaboration with the Housing Authority of the County of Kern (HACK) and other non-profit housing providers.

Program HO 2.3.2.1: Continue the Section 8 Rental Assistance program to provide rental subsidies to low-income households and special needs housing groups.

Program HO 2.3.2.2: Continue to develop other forms of financial support for vulnerable community residents.

Goal HO 3: Enough housing opportunities for all income groups.

Objective HO 3.1: Develop affordable housing units to fulfill the Regional Housing Needs Assessment (RHNA) allocation as required by the California Department of Housing and Community Development (HCD).

Policy HO 3.1.1: Increase affordable housing production.

Program HO 3.1.1.1: Create and maintain an up-to-date inventory of vacant and underutilized parcels.

Program HO 3.1.1.2: Provide information to interested developers on affordable housing opportunities.

Program HO 3.1.1.2: Partner with affordable housing developers to assist in development on infill sites of housing for lower and moderate-income households.

Policy HO 3.1.2: Reduce governmental constraints to housing production.

Program HO 3.1.2.1: Provide regulatory or financial incentives to interested developers to facilitate the construction of affordable housing.

Program HO 3.1.2.2: Update the Zoning Ordinance to facilitate development of low- and moderate-income housing and other special needs housing.

Program HO 3.1.2.3: Refine the Inclusionary Housing Ordinance to be more feasible to developers and more effective in producing affordable housing.

Policy HO 3.1.3: Comply with the most current state legislative requirements.

Program HO 3.1.3.1: Monitor the City's progress in meeting its housing needs.

Program HO 3.1.3.2: Submit Annual Progress Reports (APRs) to the California Department of Housing and Community Development (HCD) in compliance with State law.

Objective HO 3.2: Develop at least 2,450 affordable housing units by 2040.

Policy HO 3.2.1: Accommodate affordable housing need over the life of the General Plan.

Program HO 3.2.1.1: Establish multi-family housing along major arterials in the downtown area and in the vicinity of activity centers.

Program HO 3.2.1.2: Facilitate the provision of Accessory Dwelling Units (ADUs) as a means of providing affordable rental housing in existing neighborhoods.

Program HO 3.2.1.3: Adopt a new Accessory Dwelling Unit (ADU) ordinance in compliance with State law.

Program HO 3.2.1.4: Revise the Zoning Ordinance to change all references to "Secondary Units" to "Accessory Dwelling Units" (ADUs) in compliance with State law.

9. ECONOMIC DEVELOPMENT

9.1 Introduction

The Economic Development Element establishes guidelines to support the growth of McFarland's economic base through key strategies to expand economic opportunities. McFarland's economic potential relates closely to its physical development as described by the Land Use and Circulation Elements, since economic opportunities are highly influenced by neighboring uses and activities as well as local connectivity. A resilient economy involves promoting businesses, increasing property values, planning transportation access to centers of employment, and providing education and other public services, while also considering how to promote equitable development, minimize displacement, and provide access to self-sufficient wages. The following goals, objectives, policies, and programs outline a strategy for achieving a diversified local economy that can provide employment opportunities for residents, adequate community programs and services, and foster an environment for a thriving tax base to support local government expenditures.

9.2 Goals, Objectives, Policies, and Programs

Goal ED 1: A resilient local economy.

Objective ED 1.1: Develop and maintain a diversity of businesses.

Policy ED 1.1.1: Balance industrial, commercial, agricultural, and residential needs.

Program ED 1.1.1.1: Survey downtown businesses regarding their needs, assets, and aspirations to better understand the needs of current and future businesses.

Program ED 1.1.1.2: Expedite plan review and permitting processes to facilitate commercial development along Highway 99.

Program ED 1.1.1.3: Provide a licensing process for construction of temporary worker housing and migrant farmworker housing in suitable areas.

Policy ED 1.1.2: Prepare workers for skilled employment opportunities.

Program ED 1.1.2.1: Partner with local high schools to fund classes that provide job-ready career skills, especially in technology, vocational training, and skilled labor fields.

Program ED 1.1.2.2: Partner with local educational institutions to establish a job training and retraining program.

Program ED 1.1.2.3: Develop adult vocational programs for relevant industries.

Program ED 1.1.2.4: Provide affordable English language adult education programs for residents.

Program ED 1.1.2.5: Pilot a jobs-matching program that ensures residents are aware of job opportunities.

Objective ED 1.3: Develop highway-oriented commercial use and large-scale retail uses to serve McFarland and surrounding areas.

Policy ED 1.3.1: Capture revenue from pass-through traffic.

Program ED 1.3.1.1: Demarcate land for commercial development along Highway 99.

Program ED 1.3.1.2: Create a specific plan for new highway commercial along Highway 99.

Program ED 1.3.1.3: Build charging stations for electric and other alternative energy vehicles along Highway 99.

Objective ED 1.4: Leverage historic and cultural tourism opportunities.

Policy ED 1.4.1: Promote McFarland's history.

Program ED 1.4.1.1: Provide legible and noticeable wayfinding signs signifying culturally significant sites for pedestrians and motorists.

Program ED 1.4.1.2: Showcase McFarland's legacy as cross-country champions.

Program ED 1.4.1.3: Advertise historic resources regionally.

Policy ED 1.4.2: Attract travel accommodations to retain tourists.

Program ED 1.4.2.1: Streamline permitting for motels, hotels, inns, RV parks, and campgrounds, particularly near Famoso Raceway.

Objective ED 1.5: Update local infrastructure and regional connectivity to serve industrial and commercial interests.

Policy ED 1.5.1: Increase access to job centers.

Program ED 1.5.1.1: Work in conjunction with Kern Transit to provide community-serving transportation options.

Program ED 1.5.1.2: Develop a park and ride program or vanpool to provide access to job centers.

Policy ED 1.5.2: Generate revenue and obtain funding for community services and infrastructure projects.

Program ED 1.5.2.1: Explore options to raise tax revenue, including but not limited to sales tax and parcel tax.

Program ED 1.5.2.2: Pursue federal and state grants for transit and pedestrian infrastructure development.

Objective ED 1.6: Provide resources for the development of businesses that promote sustainable practices.

Policy ED 1.6.1: Promote incentives for sustainable business practices.

Program ED 1.6.1.1: Offer reduced development fees for Leadership in Energy and Environmental Design (LEED) Certified buildings.

Program ED 1.6.1.2: Provide a green building incentive program for priority building permit review at no additional fee.

Policy ED 1.6.2: Remove barriers for businesses that provide locally needed goods and services.

Program ED 1.6.2.1: Develop a "buy local" program that encourages shopping at local businesses.

Goal ED 2: An appealing place to live and work.

Objective ED 2.1: Establish a vibrant downtown core.

Policy ED 2.1.1: Use the 2nd Street corridor as catalyst for downtown improvement.

Program ED 2.1.1.1: Create a business improvement district along 2nd Street.

Program ED 2.1.1.2: Upgrade storefronts along streets in the business district.

Program ED 2.1.1.3: Add a 1 cent sales tax to improve businesses in the district.

Policy ED 2.1.2: Promote use of public space and community interaction.

Program ED 2.1.2.1: Create walkable human-scale infrastructure.

Program ED 2.1.2.2: Create spaces for public gatherings, festivals, and farmers markets.

Objective ED 2.2: Improve quality of life.

Policy ED 2.2.1: Promote affordable housing.

Program ED 2.2.1.1: Establish inclusionary zones to incentivize private developers to build below-market-rate housing.

Policy ED 2.2.2: Improve public safety and perception of public safety.

Program ED 2.2.2.1: Build relationships between police and businesses.

Program ED 2.2.2.2: Build relationships between police and neighborhood residents.

Objective ED 2.3: Provide access to public goods and services to residents and organizations.

Policy ED 2.3.1: Regularly obtain community feedback to make decisions based upon community needs.

Program ED 2.3.1.1: Conduct yearly business and customer surveys.

Policy ED 2.3.2: Meet requirements of the Americans with Disabilities Act (ADA).

Program ED 2.3.2.1: Encourage evaluation of ADA compliance at business establishments.

Program ED 2.3.2.2: Encourage update of public infrastructure for ADA compliance.

Program ED 2.3.2.3: Facilitate ADA retrofits for private establishments.

Goal ED 3: A business-friendly and business-ready environment.

Objective ED 3.1: Maintain a strong working relationship with the business community.

Policy ED 3.1.1: Leverage incentives for business retention and expansion.

Program ED 3.1.1.1: Host quarterly workshops for business owners to attend and learn about opportunities available for small businesses.

Program ED 3.1.1.2: Review City ordinances for impacts on businesses.

Program ED 3.1.1.3: Streamline municipal fee structures to promote renovations and development of existing businesses.

Program ED 3.1.1.4: Lobby for expansion of state Opportunity Zones to encourage investment within McFarland's Sphere of Influence.

Program ED 3.1.1.5: Develop a Business Improvement District for high opportunity areas.

Objective ED 3.2: Attract new businesses and offer incentives for economic development.

Policy ED 3.2.1: Reduce barriers to establishing new businesses.

Program ED 3.2.1.1: Streamline permitting and maintain flexible zoning for commercial and industrial uses.

Program ED 3.2.1.2: Provide a guide to streamline the business permitting process.

Program ED 3.2.1.3: Develop an entrepreneur guide that provides information on opportunities within McFarland.

Policy ED 3.2.2: Facilitate strategic placement of businesses.

Program ED 3.2.2.1: Establish a list of infill opportunities and vacant lots that, in consultation with property owners, can aid investors in the decision-making process.

Program ED 3.2.2.2: Establish a list of "shovel-ready" sites in consultation with property owners and provide the list to interested developers and businesses in the City.

Program ED 3.2.2.3: Develop a specific plan in the southern expansion area for a business park with flexibility for light industrial uses.

Program ED 3.2.2.4: Explore and research opportunities to utilize railways for a distribution center.

10. SAFETY

10.1 Introduction

The Safety Element addresses natural and man-made hazards that pose potential risk to life or property. Hazards include flood, fire, seismic and geologic risk, hazardous materials, climate change, aircraft safety, drought, and emergency preparedness. Identifying and addressing these hazards can help inform the community, ensure effective implementation of policies, and guide future development.

Extreme weather and flooding pose the most significant threat to McFarland, particularly with the effects of climate change which are likely to result in more irregular weather patterns. This chapter provides goals, objectives, policies, and programs developed to reduce and mitigate major safety concerns for the City. General evacuation routes and shelter preparedness is also addressed in this chapter to ensure resources are available to the community.

The vision is for McFarland to continue to grow safely, avoid known hazards, and following safe building practices. Addressing hazards individually would allow the community to examine each risk against corresponding goals, objectives, policies, and programs created to address it.

10.2 Goals, Objectives, Policies, and Programs

Goal SAF 1: A safe and steadfast community.

Objective SAF 1.1: Maintain a long-term comprehensive safety outlook.

Policy SAF 1.1.1: Maintain eligibility for grant funding opportunities for community preparedness.

Program SAF 1.1.1.1: Continually update the Local Hazard Mitigation Plan to secure funding opportunities for community preparedness.

Policy SAF 1.1.2: Harden critical and high occupancy structures.

Program SAF 1.1.2.1: Encourage assessment of facility conditions for critical and high occupancy structures, including bridges.

Program SAF 1.1.2.2: Prioritize high risk structures for improvement.

Program SAF 1.1.2.3: Identify and secure funding to implement remedies.

Goal SAF 2: A community resilient against natural hazards.

Objective SAF 2.1: Maintain preparedness for geologic and seismic hazards.

Policy SAF 2.1.1: Encourage reduction in the risk of loss of life, personal injury and damage to property resulting from geologic and seismic hazards.

Program SAF 2.1.1.1: Coordinate with McFarland Public Works Department to organize and publicize educational events.

Program SAF 2.1.1.2: Educate residents on ways to mitigate injury and damage associated with earthquakes in their homes.

Program SAF 2.1.1.3: Using the latest building codes adopted by the State of California, incorporate geotechnical hazard data in land use decision making, site design, and construction.

Program SAF 2.1.1.4: Encourage site-specific soils and geologic reports for development in areas of serious geologic risk.

Program SAF 2.1.1.5: In areas of serious geologic risk, prohibit development unless seismic and geologic hazards can be reduced to reasonable levels.

Program SAF 2.1.1.6: Monitor and enforce structural safety standards to reduce risks for seismic and geologic hazards.

Objective SAF 2.2: Prepare for flooding events.

Policy SAF 2.2.1: Implement projects to strengthen flood control measures to reduce risk to life and property.

Program SAF 2.2.1.1: Identify flood control projects in hazard mitigation documents.

Program SAF 2.2.1.2: Prioritize flood control projects identified in the LHMP and Storm Drain Master Plan.

Program SAF 2.2.1.3: Identify possible funding sources and work with City grant writers to apply for state and federal funds to implement projects.

Program SAF 2.2.1.4: Continue to support efforts of the Bureau of Reclamation to ensure that proper maintenance and repairs of the Friant-Kern Canal are accomplished, along with other applicable agencies for flood control.

Policy SAF 2.2.2: Reduce flood risk for new development and critical infrastructure.

Program SAF 2.2.2.1: Prior to development, encourage flood risk assessment and possible mitigation measures to reduce risks to life and property.

Program SAF 2.2.2.2: Prohibit development in the 100-year flood plain unless mitigation measures meeting Federal Flood Insurance Administration criteria are provided.

Policy SAF 2.2.3: Protect essential facilities from flooding by implementing flood control measures and relocating facilities when needed.

Program SAF 2.2.3.1: Create an inventory of essential facilities which are at risk of flood damage within the 100- and 500-year flood plains.

Program SAF 2.2.3.2: Locate the construction of essential facilities outside the 500-year flood plain or ensure facilities are equipped to mitigate flooding to ensure long term operation.

Objective SAF 2.3: Prepare for urban and wildland fire hazards.

Policy SAF 2.3.1: Evaluate and respond to urban and wildland fire hazards affecting McFarland where present.

Program SAF 2.3.1.2: Update urban and wildland fire threat as data sources become available and seek guidance and data from Cal Fire.

Policy SAF 2.3.3: Evaluate fire threats in existing and proposed developments.

Program SAF 2.3.3.1: Coordinate fire threat evaluation with Kern County Fire, given Cal Fire threat assessments and federal data sources.

Program SAF 2.3.3.2: Enact measures for resident and employee safety in areas of recognized commercial and industrial fire threat.

Program SAF 2.3.3.3: Reduce vulnerability especially with vegetation management (e.g., fire resistant landscaping, fuel breaks, etc.) to prevent drought/extreme weather-related fire risk.

Program SAF 2.3.3.4: Encourage commercial and industrial properties to maintain fire safe standards and operate in a safe manner when handling flammable materials or byproducts.

Policy SAF 2.3.4: Create defensible space for McFarland through best management practices.

Program SAF 2.3.4.1: Encourage abatement of potentially flammable material through trimming, thinning, or reduction of potential fuel from habitable or occupied areas according to Cal Fire defensible space standards.

Program SAF 2.3.4.2: Check with state and federal hazard management agencies for updated areas of concern in wildland and urban fire scenarios on a 10-year cycle.

Policy SAF 2.3.5: Adopt uniform building and fire codes as they are updated by the State.

Policy SAF 2.3.6: Educate the public about fire safety.

Program SAF 2.3.6.1: Promote public fire safety education programs to reduce accidents, injuries, and fires in coordination with McFarland School District and community agencies.

Program SAF 2.3.6.2: Promote public safety through Cal Fire programs, pamphlets, and education opportunities with school and community engagement in English and Spanish.

Objective SAF 2.4: Prepare to withstand the effects of drought.

Policy SAF 2.4.1: Conserve water in all sectors.

Program SAF 2.4.1.1: Educate the community on water conservation practices.

Program SAF 2.4.1.2: Measure the success of current water conservation programs, prioritizing development of successful programs, and continually revise programs to meet water reduction goals.

Program SAF 2.4.1.3: Create new programs to promote efficient and responsible water use.

Program SAF 2.4.1.4: Enact new measures as needed according to protocols established by the Kern Groundwater Authority.

Policy SAF 2.4.2: Invest in waterwise infrastructure.

Program SAF 2.4.2.1: Adapt existing green spaces in public areas to retain rainwater on site.

Policy SAF 2.4.3: Identify groundwater recharge locations where soil and geography allow for infiltration.

Program SAF 2.4.3.1: Pursue grants to aid long term groundwater recharge projects.

Program SAF 2.4.3.2: Examine proposed public infrastructure projects for potential water recharge opportunities.

Program SAF 2.4.3.3: Identify and evaluate potential land holdings to be purchased and used as spreading ponds.

Objective SAF 2.5: Prepare for extreme weather conditions.

Policy SAF 2.5.1: Use McFarland's extreme weather history to prepare for future hazards.

Program SAF 2.5.1.1: Create and maintain a database of localized Extreme Weather Events based on National Oceanic and Air Administration data.

Program SAF 2.5.1.2: Use Extreme Weather Events databases to provide a constraints map for future growth based on historic trends and frequent or notable disaster areas, including land use and circulation areas affected in past events.

Policy SAF 2.5.2: Develop feasible adaptation measures for McFarland's extreme weather conditions in coordination with state and federal agencies.

Program SAF 2.5.2.1: Provide shelter and services during conditions of prolonged extreme heat, particularly concerning for the elderly, children, and farmworkers.

Program SAF 2.5.2.1: Study effects of past extreme heat events on McFarland's sensitive populations, particularly those who work outdoors.

Program SAF 2.5.2.3: Based on the studied effects, implement a reasonable and feasible system of shelters, water and cooling stations, and other resources such as resilient power generation for shelters to reduce the negative impact of extreme heat.

Policy SAF 2.5.3: Mitigate the damage associated with extreme weather events while traveling.

Program SAF 2.5.3.1: Prioritize safety upgrades to circulation for fog and winter storm conditions as well as other identified hazards of concern.

Objective SAF 2.6: Prepare for and continually adapt to a changing climate.

Policy SAF 2.6.1: Recognize the evolving threats of climate change.

Program SAF 2.6.1.1: In the next revision of the Local Hazard Mitigation Plan (LHMP), conduct a vulnerability assessment for the effects of the changing climate by:

- Assembling a diverse local and regional team to represent agencies, organizations, and communities.
- Identifying the climate change effects McFarland can experience.
- Identifying what aspects of the community might be affected and what those potential impacts could be and efforts to address them.
- Identifying how likely the impacts could be and how quickly they could occur.

Program SAF 2.6.1.2: Update the vulnerability assessment with each revision of the LHMP.

Policy SAF 2.6.2: Adapt to the effects of climate change relevant to McFarland.

Program SAF 2.6.2.1: In revisions of the LHMP, create, prioritize, and implement climate change adaptation strategies by:

- Identifying which impacts of climate change require actions to address them and prioritizing those adaptation needs.
- Identifying strategies to address adaptation needs.
- Evaluating and prioritizing strategies.
- Phasing and implementing strategies by creating trigger points for phased actions.

Program SAF 2.6.2.2: Update adaptation strategies with each revision of the LHMP.

Goal SAF 3: A community protected from human-made hazards.

Objective SAF 3.1: Reduce exposure to hazardous materials.

Policy SAF 3.1.1: Map and remediate contaminated sites.

Program SAF 3.1.1.1: Locate unidentified contamination sites and remediate with property owners and applicable agencies.

Program SAF 3.1.1.2: Work with Federal, State, regional, and local agencies to identify contaminated sites and work with property owners and applicable agencies to remediate them. When working with agencies, use the Hazardous Waste and Substances Sites List (Cortese List) and Environmental Restoration Program EnviroStor database.

Policy SAF 3.1.2: Coordinate with County departments to monitor the operations of businesses and individuals that handle hazardous materials.

Program SAF 3.1.2.1: Mitigate the potential for harmful effects of hazardous materials through the permitting process.

Program SAF 3.1.2.2: When approving new development, encourage the preparation of a report certifying that the site has been surveyed for hazardous contaminants and has been appropriately remediated for the future proposed use.

Policy SAF 3.1.3: Reduce dependency on hazardous materials and products.

Program SAF 3.1.3.1: Educate residents and businesses on the reduction or elimination of the use of hazardous materials and products, and encourage the use of safer, nontoxic, environmentally friendly equivalents.

Policy SAF 3.1.4: Enact proper disposal of household hazardous waste.

Program SAF 3.1.4.1: Educate residents on appropriate disposal of household hazardous waste and publicize collection events and locations.

Policy SAF 3.1.5: Minimize exposure to pesticides.

Program SAF 3.1.5.1: Reduce pesticide application during times of high wind affecting sensitive receptors.

Program SAF 3.1.5.2: Provide separation between sensitive receptors and pesticide application areas following Kern County Agriculture and Measurement Standards.

Program SAF 3.1.5.3: Coordinate with County departments to monitor pesticide storage, application, and exposure.

Program SAF 3.1.5.4: Coordinate training and procedures of the Kern County Fire Department and the Kern County Health Department.

Policy SAF 3.1.6: Safe transport of hazardous materials.

Program SAF 3.1.6.1: Restrict the transport of hazardous materials within McFarland to designated routes.

Program SAF 3.1.6.2: Encourage new pipelines or other channels carrying hazardous materials to avoid residential areas to the greatest extent possible.

Program SAF 3.1.6.3: Support Caltrans and California Highway Patrol efforts to ensure safe transportation of hazardous materials on Highway 99.

Program SAF 3.1.6.4: Encourage developers to investigate development sites to identify hazardous materials.

Program SAF 3.1.6.5: Encourage developers to safely transport and dispose of hazardous materials.

Policy SAF 3.1.7: Control pollution from hazardous materials.

Program SAF 3.1.7.1: Institute permitting system for demolition activities.

Program SAF 3.1.7.2: Establish a site inspection process to oversee safe demolition of existing structures.

Program SAF 3.1.7.3: Evaluate imported soils to ensure that they are free of contamination by hazard materials.

Objective SAF 3.2: Protect the community from aircraft hazards.

Policy SAF 3.2.1: Reduce exposure to aircraft hazards through the permitting process.

Program SAF 3.2.1.1: Monitor development within the Airport Zone to ensure compliance with restrictions designed to increase flight safety, such as reflective or volatile materials, in connection with the Federal Aviation Administration.

Program SAF 3.2.1.2: As future military development or training program areas arise, enact reasonable land use controls to promote military readiness and increase civilian safety.

Goal SAF 4: A community responsive to and resilient against emergencies.

Objective SAF 4.1: Develop and prepare resources for emergency response and recovery.

Policy SAF 4.1.1: Prepare emergency centers and critical infrastructure for hazards.

Program SAF 4.1.1.1: Conduct a vulnerability analysis of critical infrastructure with regards to seismic events.

Program SAF 4.1.1.2: Prioritize and implement repairs or retrofits for at-risk critical infrastructure by 2030.

Program SAF 4.1.1.3: Identify hazards and vulnerable populations needing emergency shelters for all hazards including flooding and extreme heat events.

Program SAF 4.1.1.4: Coordinate with county, state, and federal agencies on emergency preparedness.

Program SAF 4.1.1.5: Situate emergency centers to withstand 500-year floods.

Program SAF 4.1.1.6: Equip emergency centers with enough water, power, and cooling resources to support at-risk residents during extreme heat events.

Policy SAF 4.1.2: Expedite recovery after an emergency.

Program SAF 4.1.2.1: Streamline the permitting process for affected parties after earthquake, fire, or flood causes property damage or loss.

Objective SAF 4.2: Improve community-wide awareness and preparedness.

Policy SAF 4.2.1: Coordinate emergency preparedness and response measures with Kern County's Emergency Operations Plan.

Program SAF 4.2.1.1: Plan emergency event evacuation in coordination with county, state, and federal agencies.

Program SAF 4.2.1.2: Establish procedures for safe, prompt, and orderly evacuation, locations of safe meeting areas, emergency supplies including food, water, and medical supplies, and general emergency protocols.

Program SAF 4.2.1.3: Conduct periodic trainings for staff on emergency operations procedures and response.

Program SAF 4.2.1.4: Craft and publicize emergency procedures and define responsibilities for government and non-government entities during a crisis.

Policy SA4.2.2: Educate the public about emergency response procedures.

Program 4.2.2.1: Provide residents and businesses with information about local safety hazards and emergency plans, including evacuation plans and procedures to accommodate special needs populations and efficient post-disaster recovery.

Program 4.2.2.2: Educate special needs populations and disadvantaged residents about available emergency resources through existing county resources and McFarland school district programs.

Program 4.2.2.3: Educate residents about wildfire preparedness, flood preparedness, extreme heat preparedness, and climate change adaptation needs.

Objective 4.3. Improve emergency access and circulation.

Policy 4.3.1. Reduce danger to life.

Program 4.3.1.1: Map all emergency response facilities and accessways.

Program 4.3.1.2. Assess risk from evacuation and emergency response bottlenecks for hazards, particularly fire, flood, and hazardous materials.

Program 3. Develop, prioritize, and implement improvement measures for all bottlenecks considered high risk.

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11. CONSERVATION

11.1 Introduction

The Conservation Element addresses the management and conservation of an area's natural resources while allowing for economic growth. This element addresses federal and state standards of environmental regulation, soil and mineral resources, biological resources, water resources, air quality, and wildlife. Given McFarland's strong agricultural base, soil and water conservation are high priorities in the community.

The Conservation Element identifies goals, objectives, policies, and programs to guide future development in McFarland while minimizing negative impacts on natural resources. Future growth could increase water demand, but there are opportunities to improve on water and energy conservation and reduce the per-user cost of necessary infrastructure projects for residents and businesses. The Conservation Element includes policies on energy, water, and habitat that correspond with regional planning goals.

11.2 Goals, Objectives, Policies, and Programs

Goal CON 1: Resilience to flooding.

Objective CON 1.1: Strengthen flood control measures.

Policy CON 1.1.1: Prioritize flood control projects identified in the Storm Drain Master Plan.

Program CON 1.1.1.1: Complete and implement the McFarland Storm Drain Master Plan by 2035, prioritizing improvement near East Perkins Avenue within the 100-year flood plain.

Program CON 1.1.1.2: Implement new or expand existing sump basins for any new development within 100 and 500-year flood plains.

Program CON 1.1.1.3: Create an evacuation plan for vulnerable residential areas east of Highway 99.

Program CON 1.1.1.4: Apply for the Urban Flood Protection Program to help offset the costs of upgrading current infrastructure.

Goal CON 2: Efficient use of water and energy.

Objective CON 2.1: Conserve water usage for all sectors.

Policy CON 2.1.1: Educate the community on water conservation.

Program CON 2.1.1.1: Invite organizations that can educate the public on water efficient practices and climate change to public events and schools.

Policy CON 2.1.2: Decrease water use in new and existing developments.

Program CON 2.1.2.1: Investigate the use of gray water irrigation systems in new developments.

Program CON 2.1.2.2: Use drip irrigation systems and drought tolerant or native vegetation in newly developed areas.

Program CON 2.1.2.3: Prepare an urban water management plan (UWMP) as population grows and the City's service area expands to comply with SB 7X-7 (Water Conservation Act of 2009). Develop the plan to decrease water use in public landscapes by 25% of 2018 levels by 2035. Convert existing landscapes to drip systems and replace landscapes requiring significant irrigation with drought tolerant vegetation.

Program CON 2.1.2.4: Apply for funding from The Institutional Turf Replacement Program (ITRP) to help offset the costs of conversion.

Program CON 2.1.2.5: Measure the success of current water conservation programs and utilize data in future programs and ordinances.

Objective CON 2.2: Increase the use of solar panels.

Policy CON 2.2.1: Conduct a sun and shade study to locate the most optimal locations for solar panel installation.

Program CON 2.2.1.1: Install solar panels on public facilities, specifically City Hall, public parking lots, and vacant land.

Program CON 2.2.1.2: Apply for Green Roof Retrofit Grants, REAP Grants, and other programs to help fund installation and capital costs for homeowners and local businesses.

Objective CON 2.3: Conserve energy usage in all sectors.

Policy CON 2.3.1: Educate the public on the importance of energy-saving techniques.

Program CON 2.3.1.1: Work with Public Works Department and invite organizations that can educate the public on energy efficient home goods and climate change to public events and schools.

Policy CON 2.3.2: Seek opportunities to improve energy efficiency within City facilities.

Program CON 2.3.2.1: Conduct energy efficiency and water use audits on all City facilities and create a schedule to prioritize implementation of the most cost-effective efficiency measures.

Program CON 2.3.2.2: Seek grants, low interest loans, and other funding sources for energy efficiency projects at schools and any critical or emergency response facilities.

Goal CON 3: Protection and respect for rare and endangered wildlife.

Objective CON 3.1: Increase public awareness of wildlife of McFarland.

Policy CON 3.1.1: Host educational events for the public and students.

Program CON 3.1.1.1: Coordinate with the U.S. Fish and Wildlife Services to host workshops about the geographic and ecologic context of McFarland at community events and school.

Objective CON 3.2: Reduce risks to wildlife and plant health.

Policy CON 3.2.3: Update current public maintenance plans to pesticide free maintenance strategies where feasible.

Program CON 3.2.3.1: Eliminate the use of neonicotinoid insecticides and other highly toxic systemic insecticides.

Program CON 3.2.3.2: Restrict the purchase and use of products that contain neonicotinoids and seeds or plants that have been treated with neonicotinoids.

Program CON 3.2.3.3: Eliminate cosmetic pesticide applications.

Objective CON 3.3: Investigate the potential suitability for and existing presence of wildlife in McFarland.

Policy CON 3.3.1: Coordinate with the US Fish and Wildlife services.

Program CON 3.3.1.1: Utilize a trained expert before and during construction projects to evaluate the site-specific presence of endangered or threatened species.

Program CON 3.3.1.2: Contact US Fish and Wildlife Services to find financial incentives and opportunities for providing endangered species habitat.

Policy CON 3.3.2: Increase suitability for wildlife in McFarland.

Program CON 3.3.2.1: Adapt existing green spaces in public areas to become attractive to threatened and endangered species in the region. Provide plant material that is attractive to the Tricolored Blackbird, Burrowing Owls, and Swainson's Hawk for nesting and foraging.

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12. OPEN SPACE

12.1 Introduction

The Open Space Element addresses the future of McFarland's recreation and parks spaces. Within City limits, recreational parks include McFarland Park, Ritchey Park, Arturo J. Munoz Park, Blanco Park, and Browning Road Park. Other outdoor recreational spaces include Kaboom Playground, the grass field by the local public library, and Villa Del Caribe Park which is still under development. Parks development formerly concentrated in the southwest of McFarland.

Open spaces provide vital support for the wellbeing of McFarland's residents and overall economic prosperity. This element assesses the current and future condition of McFarland's open space assets and provides suggestions for future expansion of places and services for residents. Goals, objectives, policies, and programs in this plan address these open space topics as they relate to the City of McFarland.

12.2 Goals, Objectives, Policies, and Programs

Goal OS 1: Attractive, accessible, and comprehensive open spaces.

- **Objective OS 1.1:** Provide adequate park space for residents.
  - **Policy OS 1.1.1:** Provide park spaces within a quarter mile of residential neighborhoods.
    - **Program OS 1.1.1.1:** Condition new residential development on the creation of park space through in lieu fees, direct dedication, or similar measures.
- **Objective OS 2.2:** Improve access to park spaces
  - **Policy OS 1.2.1:** Enhance pedestrian and vehicular access to open space.
    - **Program OS 1.2.1.1:** Establish bus stops at new and existing park spaces
    - **Program OS 1.2.1.2:** Provide Americans with Disabilities Act (ADA) compliant parking spaces at parks.
- **Objective OS 1.3:** Increase visual appeal of open space.
  - **Policy OS 1.3.1:** Work with the McFarland Recreation and Parks District to maintain or upgrade park amenities.
    - **Program OS 1.3.1.1:** Add sitting structures, trash cans, lighting, street trees, and widened sidewalks to 5th street, W Sherwood Street, Woodruff Avenue, W Kern Avenue, E Kern Avenue, Browning Road and E Sherwood Avenue.
    - **Program OS 1.3.1.2:** Install new motion-detecting lights in areas where residents feel unsafe, ensuring that new installations do not disturb surrounding residential areas.
    - **Program OS 1.3.1.3:** Provide attractive, water-wise trees and shrubs within parking areas to reduce the heat island effect and increase ground permeability.
    - **Program OS 1.3.1.4:** Include bike racks in open spaces to encourage biking.

Program OS 1.3.1.4: Provide multi-age playground and park equipment.

Goal OS 2: An engaged, active, and proud community.

Objective OS 2.1: Utilize McFarland's history to strengthen the community.

Policy OS 2.1.1: Protect and maintain the City's historic cultural resources.

Program OS 2.1.1.1: Include Native American Tribal Authorities in environmental review processes.

Program OS 2.1.1.2: Provide confidential review and protection for cultural heritage resources if present or found during development.

Policy OS 2.1.2: Promote the use of open space for cultural and community enrichment.

Program OS 2.1.2.1: Use public open spaces for events such as celebrations, festivals, farmers' markets, and concerts.

Policy OS 2.1.3: Foster an appreciation of diverse cultural identities through geographic and historical context.

Program OS 2.1.3.1: Establish a system of signage that promotes and provides historical context for open space resources.

Program OS 2.1.3.2: Promote the McFarland historical society.

Objective OS 2.2: Increase community fitness.

Policy OS 2.2.1: Increase functionality of outdoor open spaces and facilities.

Program OS 2.2.1.1: Expand programming of City parks and recreation facilities.

Program OS 2.2.1.2: Add outdoor exercise equipment, playgrounds, and other recreation opportunities to public open space where practical.

Program OS 2.2.1.3: Collaborate with schools and local agencies to provide fitness education.

Objective OS 2.3: Preserve and enhance natural resources by engaging people of all ages and ability levels.

Policy OS 2.3.1: Provide youth outdoor educational opportunities to promote community engagement.

Program OS 2.3.1.1: Partner with youth opportunity agencies to promote outdoor enrichment, engaging youth with the community and their natural environment.

Program OS 2.3.1.2: Partner with the McFarland Tri-Agency to develop volunteer opportunities at public parks, Lake Woollomes, and other outdoor facilities.

Policy OS 2.3.2: Enhance recreational programs suitable for all ages and ability levels.

Program OS 2.3.2.1: Monitor how existing park space satisfies the needs of residents and users with community surveys and address needs based on responses.

13. AIR QUALITY

13.1 Introduction

The Air Quality Element is a required component of McFarland's General Plan since McFarland falls under the State of California's definition of a disadvantaged community per SB 1000 in terms of median income. Secondly, McFarland is located within the San Joaquin Valley Air Basin, which suffers from notably poor air quality. The air basin is not in attainment with federal regulatory standards including the Clean Air Act and National Ambient Air Quality Standards, and state regulations including the California Clean Air Act and the California Ambient Air Quality Standards. The asthma rates within the City are in the 67th percentile in the State of California overall, meaning that asthma rates in McFarland are higher than 67% of the other communities in the State.

Most air pollution in the San Joaquin Valley stems from locally generated pollutants, primarily from agricultural activities. Other contributors include vehicular emissions, construction emissions, and fugitive dust and odors. The San Joaquin Valley is also disproportionately affected by greenhouse gas emissions which not only contribute to the warming of the planet but also contribute to local air pollution and endanger human health. Per Kern County's Greenhouse Gas Inventory, the fossil fuels industry in Kern County makes up a majority of the greenhouse gas emissions for Kern County at approximately 40% of the 2005 baseline. Emissions of greenhouse gases in Kern County are mostly attributed to industry and energy consumption. Construction and agricultural activities also exacerbate emissions.

Good air quality is important for public health, especially for sensitive populations, including the youth, elderly, and individuals with heart disease or respiratory problems. The following goals, objectives, policies, and programs outline McFarland's strategy to keep air pollutants and emissions low to protect the health and safety of residents.

13.2 Goals, Objectives, Policies, and Programs

Goal AQ 1: Improved air quality in McFarland.

- **Objective AQ 1.1:** Continue monitoring and reporting significant air pollution sources.
  - **Policy AQ 1.1.1:** Coordinate with the San Joaquin Valley Air Pollution Control District ("Air District") to identify air pollution reduction progress and key contributors to air pollution.
    - **Program AQ 1.1.1.1:** Work with the Air District to build an air monitoring station in McFarland.
    - **Program AQ 1.1.1.2:** Collaborate with the Air District to develop a website to report live air quality monitoring data.
    - **Program AQ 1.1.1.3:** Pursue funding under Assembly Bill 617.
- **Objective AQ 1.2:** Reduce air pollutants.
  - **Policy AQ 1.2.1:** Meet attainment status for criteria pollutants according to National Ambient Air Quality Standards (NAAQS) and State Ambient Air Quality standards (SAAQS).

Program AQ 1.2.1.1: Mandate the use of cover crops to reduce particulates from agricultural operations.

Program AQ 1.2.1.2: Mandate the use of scrubbers to capture pollutants in industrial operations.

Program AQ 1.2.1.3: Comply with state diesel exhaust standards to reduce pollutants for mobile and agricultural sources.

Program AQ 1.2.1.4: Mandate dust mitigation tactics in all construction operations.

Objective AQ 1.4: Integrate land use planning, transportation planning, and air quality planning.

Policy AQ 1.4.1: Make the most efficient use of public resources to create a healthier environment.

Program AQ 1.4.1.1: Develop coordinated land use and transportation plans to help meet federal, state, and local air quality requirements.

Program AQ 1.4.1.2: Work with Caltrans and the Regional Transportation Planning Agency to minimize the air quality impacts of large-scale transportation projects.

Program AQ 1.4.1.3: Encourage submission of development projects to the Air District for CEQA comments and review of air quality analysis.

Program AQ 1.4.1.4: Determine project air quality impacts using analysis methods and significance thresholds recommended by the Air District.

Policy AQ 1.4.2: Establish an urban forestry program to improve air quality by requiring new development and street resurfacing plans to include street and shade trees.

Program AQ 1.4.2.1: Coordinate with local non-profits and seek grants from state and national organizations to fund tree planting for air quality and other benefits.

Policy AQ 1.4.3: Minimize health risks from industrial toxic or hazardous air pollutant emissions.

Program AQ 1.4.3.1: Establish buffers between heavy industrial development projects and residential land uses.

Goal AQ 2: A climate-adapting community.

Objective AQ 2.1: Reduce greenhouse gas emissions to 40% below 1990 emission levels by 2030 and 80% below 1990 emission levels by 2050.

Policy AQ 2.1.1: Conserve and reduce energy use.

Program AQ 2.1.1.1: Develop energy conservation opportunities.

Program AQ 2.1.1.2: Establish energy conservation requirements for development (e.g. energy efficient light bulbs).

Program AQ 2.1.1.3: Apply neighborhood conservation strategies such as code enforcement and building rehabilitation.

Policy AQ 2.1.2: Develop renewable energy.

Program AQ 2.1.2.1: Invest in sources of renewable energy.

Program AQ 2.1.2.2: Join a Community Choice Aggregation (CCA) program to create investment opportunities in local renewable power production.

Program AQ 2.1.2.3: Promote biogas from agricultural biproducts.

Policy AQ 2.1.3: Establish a baseline of current emissions levels and project emissions estimates for future years.

Program AQ 2.1.3.1: Conduct a greenhouse gas inventory.

Program AQ 2.1.3.2: Adopt emissions reduction strategies through a Climate Action Plan.

Policy AQ 2.1.4: Reduce vehicle emissions.

Program AQ 2.1.4.1: Establish City transit options in collaboration with Kern County Transit.

Program AQ 2.1.4.2: Work with Kern County Transit to increase regional bus services for McFarland.

Program AQ 2.1.4.3: Improve existing and develop new pedestrian and bicycle infrastructure.

Program AQ 2.1.4.4: Develop guidelines to implement alternative fuel and electrical charging stations for commercial and industrial developments

Policy AQ 2.1.5: Prioritize mixed-use and walkable neighborhoods in future developments.

Program AQ 2.1.5.1: Streamline permitting processes for mixed-use and walkable development projects.

Goal AQ 3: A well-informed community.

Objective AQ 3.1: Educate the public on the impact of individual transportation and land use decisions on air quality.

Policy AQ 3.1.1: Improve the public's understanding of the relationship between land use, transportation, and air quality.

Program AQ 3.1.1.1: Conduct public meetings, workshops, seminars, and provide consultation opportunities for developers.

Program AQ 3.1.1.2: Work with California Air Resources Board, the Air District, and the local school district to develop educational materials regarding air quality, the impact of air quality on people, plants, and animals, and measures that can help to improve air quality.

Program AQ 3.1.1.3: Host meetings to inform and educate residents on air pollution sources, the associated health consequences, and methods to avoid or reduce air pollution impacts on public health.

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14. HEALTH

14.1 Introduction

The Health Element identifies measures of physical, mental, and social wellness. The element addresses adequate access to healthcare, decreasing rates of obesity and other diseases, and creating a variety of affordable healthy food options. The residents of Kern County, which includes McFarland, suffer from high rates of obesity, obesity related diseases, and sexually transmitted diseases. These are all areas of special focus on health in Kern County which is, for example, ranked 58th out of 58 counties in deaths from diabetes. Vulnerable populations that are more at risk for these diseases include low-income individuals and families, medically underserved populations, minority groups, and the youth and elderly.

The purpose of the Health Element's goals, objectives, policies and programs are to address the health issues and challenges of the City. To provide a comprehensive health plan, the Health Element incorporates aspects of other elements, but especially Circulation and Environmental Justice.

14.2 Goals, Objectives, Policies, and Programs

Goal HTH 1: Equitable access to healthcare.

Objective HTH 1.1: Teach the public about primary, preventative, and specialized healthcare services.

Policy HTH 1.1.1: Promote preventive health awareness and education.

Program HTH 1.1.1.1: Create educational activities that are offered in multiple languages, covering a variety of health topics (including STD and obesity prevention and treatment), and make them available at health centers, community centers, schools, and libraries.

Policy HTH 1.1.2: Create educational programs to promote healthy behaviors.

Program HTH 1.1.2.1: Coordinate with community centers and schools to provide education on healthy eating and behaviors.

Objective HTH 1.2: Promote access to healthcare services.

Policy HTH 1.2.1: Promote accessible sexual health examination services.

Program HTH 1.2.1.1: Coordinate with healthcare facilities to provide STD testing within the City.

Policy HTH 1.2.2: Expand access to early detection of high-risk diseases.

Program HTH 1.2.2.1: Provide early screening for high risk populations.

Objective HTH 1.3: Seek funding to address specialized healthcare for specific needs-based populations.

Policy HTH 1.3.1: Support local clinics such as McFarland Singh Medical Clinic and Clinica Sierra Vista that provide health-related care for special needs populations.

Program HTH 1.3.1.1: Apply to specific grants and funding opportunities such as Healthy People 2020.

Program HTH 1.3.1.2: Collect donations from local businesses and organizations to apply toward health initiatives.

Objective HTH 1.4: Expand transportation options for special needs populations.

Policy HTH 1.4.1: Improve connections and transportation options for all.

Program HTH 1.4.1.1: Sponsor low cost means of transportation such as subsidized taxi and volunteer ride services to health clinics.

Program HTH 1.4.1.2: Expand Dial-A-Ride service to include healthcare facilities outside of the City.

Goal HTH 2: A physically active community with decreased rates of obesity.

Objective HTH 2.1: Promote healthy lifestyles and behaviors.

Policy HTH 2.1.1: Promote using alternative modes of transportation for short distance trips.

Program HTH 2.1.1.1: Install bicycle infrastructure on main corridors and activity centers.

Program HTH 2.1.1.2: Create educational programs to promote healthy behaviors.

Program HTH 2.1.1.3: Improve landscape along sidewalks to increase walkability.

Objective HTH 2.2: Create opportunities for physical activities.

Policy HTH 2.2.1: Promote free and low-cost fitness programs.

Program HTH 2.2.1.1: Collaborate with nonprofit organizations to organize fitness events.

Goal HTH 3: A variety of affordable healthy food options.

Objective HTH 3.1: Increase access to affordable healthy food providers.

Policy HTH 3.1.1: Promote the prevalence of affordable fresh produce, including fruits and vegetables.

Program HTH 3.1.1.1: Establish neighborhood-serving retail centers within walking distance (one-quarter mile) of all residential areas.

Program HTH 3.1.1.2: Collaborate with local agricultural providers to offer affordable, fresh, local, healthy produce in existing grocery stores.

Objective HTH 3.2: Increase access to food assistance programs.

Policy HTH 3.2.1: Connect the community with programs and providers.

Program HTH 3.2.1.1: Create informational pamphlets that summarize available food assistance programs to be distributed at schools, non-profit agencies, and public places.

Program HTH 3.2.1.2: Connect low-income households and people experiencing homelessness to food-assistance programs such as WIC, SNAP, and local food banks.

Program HTH 3.2.1.3: Collaborate with local food banks to expand distribution to accommodate the community.

15. ENVIRONMENTAL JUSTICE

15.1 Introduction

The Environmental Justice Element is required in some jurisdictions by the California Governor's Office of Planning and Research (OPR). Following the adoption of Senate Bill 1000 in 2016, the OPR requires both cities and counties that have disadvantaged communities to incorporate environmental justice (EJ) policies into their General Plans, either in a separate EJ Element or by integrating related goals, policies, and objectives throughout the other elements.

According to the CalEnviroScreen program, the City of McFarland is classified as a disadvantaged community. Both census tract 6029004702, which covers the eastern portion of the City, and tract 6029004701, which covers the western portion of the City, score in the 75th to 80th percentile range of all CalEnviroScreen scores. Although the pollution burden scores fall in the 57th and 56th percentiles respectively, the population characteristics scores are in the 86th and 85th percentiles, respectively. Census tract 6029004604, which surrounds the City, falls in the 95th to 100th percentile of all CalEnviroScreen scores. This is important to recognize, as the City is planning to annex land south to Whisler Road, and to subsequently extend the Sphere of Influence further south along Highway 99.

The requirements of the EJ Element are statutory according to California Government Code Section 65302-(h), which indicates that an EJ Element must identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities. This is achieved through the reduction of pollution exposure, the improvement of air quality, the promotion of public facilities, food access, safe and sanitary homes, and increased physical activity. The Environmental Justice Element must also identify objectives and policies to promote civil engagement in the public decision-making process, and those that prioritize improvements and programs that address the needs of disadvantaged communities.

For McFarland to be sustainable, inclusive, and resilient, it requires transportation that facilitates safe, efficient, pollution-free mobility for its residents. Expansions to McFarland's bikeway network, sidewalks, and public transit can help McFarland transition to a more multimodal city marked by healthy, affordable, and integrated mobility and promote physical activity through active transportation.

15.2 Goals, Objectives, Policies, and Programs

Goal EJ 1: A clean community.

Objective EJ 1.1: Develop equitable strategies for the effects of air pollution from agriculture and transportation on vulnerable populations.

Policy EJ 1.1.1: Address air pollution and its sources.

Program EJ 1.1.1.1: Work with the Air Pollution Control District to install an air quality monitoring station within McFarland.

Policy EJ 1.1.2: Focus mitigation efforts on vulnerable residents.

Program EJ 1.1.2.1: Coordinate efforts with special focus on low-income residents, seniors, and the youth.

Objective EJ 1.2: Maintain physical cleanliness within the City.

Policy EJ 1.2.1: Prioritize areas with the greatest need for clean-up efforts.

Program EJ 1.2.1.1: Sponsor community clean-up events in coordination with relevant public and private organizations.

Goal EJ 2: A quiet community.

Objective EJ 2.1: Reduce or eliminate intrusive noise, especially relative to noise-sensitive uses and residents.

Policy EJ 2.1.1: Mitigate proposed noise-producing activities.

Program EJ 2.1.1.1: Enforce applicable City, state and federal regulations that reduce intrusive noise and alleviate noise that is deemed a public nuisance.

Policy EJ 2.1.2: Reduce or mitigate noise impacts associated with land development.

Program EJ 2.1.2.1: Update noise contours to conform to land use updates.

Program EJ 2.1.2.2: Encourage mitigation for projects near noise-sensitive populations.

Goal EJ 3: Accessible community programs and facilities for all residents.

Objective EJ 3.1: Develop adequate healthcare facilities for residents.

Policy EJ 3.1.1: Address and mitigate the most prevalent health risks and diseases.

Program EJ 3.1.1.1: Develop strategies to address health risks.

Objective 3.2: Link parks, schools, and other public facilities citywide.

Policy EJ 3.2.1: Improve access to City facilities.

Program EJ 3.3.1.1: Install ramps and infrastructure where necessary according to the Americans with Disabilities Act.

Program EJ 3.3.1.2: Establish safe bicycle and pedestrian paths among public facilities.

Goal EJ 4: A healthy community.

Objective EJ 4.1: Improve public health for residents.

Policy EJ 4.1.1: Promote physically active lifestyles.

Program EJ 4.1.1.1: Develop promotional material to encourage healthy lifestyle choices and practices.

Program EJ 4.1.1.2: Collaborate with McFarland Public Works to construct street facilities that promote physical activity.

Program EJ 4.1.1.3: Coordinate with other public agencies and private advocacy groups to promote public and private programs to foster active and healthy lifestyles.

Policy EJ 4.1.2: Promote healthy food access.

Program EJ 4.1.2.1: Develop promotional material to encourage healthy food choices.

Program EJ 4.1.2.2: Identify local organizations to establish farmers' markets for local produce.

Program EJ 4.1.2.3: Encourage neighborhood retail centers to carry fresh produce.

Goal EJ 5: An active and involved citizenry in decision-making processes.

Objective EJ 5.1: Keep residents informed about governmental meetings and actions.

Policy EJ 5.1.1: Involve residents in City government activities.

Program EJ 5.1.1.1: Create an online bulletin board for disseminating information.

Policy EJ 5.1.2: Target historically non-participatory populations.

Program EJ 5.1.2.1: Promote citizen participation using Spanish and English.

Objective EJ 5.2: Integrate students into local government processes and decisions.

Policy EJ 5.2.1: Promote civic activities and citizen action among the youth.

Program EJ 5.2.1.1: Implement a program for students to shadow professionals to experience governmental processes and decisions.

Program EJ 5.2.1.2: Target student input on governmental decisions that Encourage community input.

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16. NOISE

16.1 Introduction

The Noise Element is required in the General Plan. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels, especially in noise-sensitive areas and at noise-sensitive times. Excessive noise exposure can be harmful to health, interrupt sleep, and cause stress and other issues. Noise can go unnoticed consciously and still have impacts, and it can cause annoyance or even hearing damage at close distances and high intensities.

The Noise Element outlines policies and programs designed to minimize excessive noise exposure by guiding land use planning and coordinating with the Land Use, Circulation, and Housing Elements. The Noise Element is required to identify major sources of noise, quantify noise in the community using the Community Noise Equivalent Level (CNEL) or day-night average level (L_{dn}) scales, map noise in the community with noise contour maps, and outline ways to reduce and mitigate excessive noise exposure.

In 2020, main sources of noise in McFarland were Highway 99 and the railroad. Development of sensitive receptors within the 65 decibel L_{dn} contours around these sources is to be restricted. Development of sensitive receptors within the 60 decibel L_{dn} contours is to have mitigation measures to limit noise levels. The potential for a sound barrier or sound wall may be explored, which could help reduce noise levels in existing sensitive areas near Highway 99 and the railroad. Future industrial and commercial uses are to be located so that they would not cause excessive noise for existing sensitive receptors.

16.2 Goals, Objectives, Policies, and Programs

Goal NOI 1: Quiet residential streets, schools, churches, and healthcare facilities.

Objective NOI 1.1: Avoid siting of new residential, school, church, or healthcare facility development in noise-impacted areas.

Policy NOI 1.1.1: All new residential, school, church, or healthcare facility development within the 60 dBA L_{dn} contours must include a noise analysis and noise mitigation measures to minimize exposure.

Program NOI 1.1.1.1: Develop an example noise analysis emphasizing the required contents for use by developers, as well as a list of recommended mitigation measures.

Policy NOI 1.2.1: Avoid permitting of new residential, school, church, or healthcare facility development within the 65 dBA L_{dn} contours.

Goal NOI 2: Protection of existing noise-sensitive receptors.

Objective NOI 2.1: Avoid new noise-generating development where it could cause existing sensitive receptors to become noise-impacted.

Policy NOI 2.1.1: New noise-generating development that could cause an existing noise-sensitive receptor(s) to be exposed to a noise level of 60 dBA L_{dn} or greater must include mitigation measures specifically designed to minimize noise exposure to the sensitive receptor(s).

Program NOI 2.1.1.1: Develop a list of recommended mitigation measures that are most efficient for reducing noise exposure towards specific sensitive receptors. Examples include sound barriers, earth berms, careful building and site orientation, screening by noise-tolerant buildings, and others.

POLICY NOI 2.1.2: Adopt regulations to limit construction-related noise.

PROGRAM NOI 2.1.2.1: Require restrictions on construction activity during nighttime when issuing construction permits.

Objective NOI 2.2: Reduce noise exposure of existing sensitive receptors from Highway 99 and the railroad.

Policy NOI 2.2.1: Actively seek funding sources, including grants, subsidies, donations, and other sources, for the planning, design, and construction of noise barriers along Highway 99 and the railroad.

Program NOI 2.2.1.1: Prepare a study to determine the best location(s) for noise barriers along Highway 99 and the railroad.

Program NOI 2.2.1.2: Research and implement an impact fee program for new noise-generating development to create a fund for the development of noise barriers along Highway 99 and the railroad.

Goal NOI 3: A built environment that minimizes noise generation.

Objective NOI 3.1: Maintain and upgrade public equipment regularly to minimize noise generation.

Policy NOI 3.1.1: New equipment and vehicles purchased, rented, or otherwise used by the City of McFarland must use the best available technology to minimize noise generation.

Program NOI 3.1.1.1: When replacing or doing major repairs to existing City equipment or vehicles, the equipment or vehicle must also be outfitted with the best available noise mitigating technology, such as improved mufflers and tires.

Objective NOI 3.2: Design all new development to minimize noise generation.

Policy NOI 3.2.1: All new development in the 60 dBA L_{dn} contours must include a noise analysis and explain architectural, construction, and building massing techniques used to mitigate noise generation.

Program NOI 3.2.1.1: Prepare a list of recommended architectural, construction, and building massing techniques to mitigate noise generation for use by developers.

Goal NOI 4: New economic and commercial activity in noise-appropriate areas.

Objective NOI 4.1: Favor proposed new commercial and industrial development in noise-appropriate areas, especially along Highway 99.

Policy NOI 4.1.1: Reserve undeveloped noise-impacted areas primarily for compatible commercial and industrial development.

Program NOI 4.1.1.1: Demarcate areas along Highway 99 for commercial and industrial activities with the highest noise tolerance and generation.

17. COMMUNITY DESIGN

17.1 Introduction

The Community Design Element provides the basis for aesthetic regulation of new development and offers specific guidelines to enhance the City's sense of place and quality of life for its residents. The following goals, objectives, policies, and programs align with the goals of the other elements in the General Plan to guide public and private development, with a vision for a city that is functional, aesthetically appealing, and oriented to McFarland's residents and visitors by retaining the City's small-town atmosphere. Implementing the following goals, objectives, policies, and programs can help to promote community safety and create an inviting and attractive atmosphere for McFarland with a cohesive image, enticing residents to actively participate in community events and instilling a sense of community pride.

17.2 Goals, Objectives, Policies, and Programs

Goal CD 1: An attractive and uniform city.

Objective CD 1.1: Define a pleasant image for McFarland.

Policy CD 1.1.1: Adopt a form-based code to regulate design and aesthetic qualities.

Program CD 1.1.1.1: Encourage formation of volunteer Design Review Committee of community members, planners, and designers.

Program CD 1.1.1.2: Adopt a theme that can be referenced when establishing McFarland's community aesthetic for developments.

Program CD 1.1.1.3: Develop community design guidelines to include visual descriptions of desired architectural and landscape aesthetics.

Program CD 1.1.1.4: Identify materials to use in defining McFarland including recommendations for roof tiling, building exteriors, building colors, hardscape materials and planting.

Program CD 1.1.1.5: Define design standards for commercial areas, sidewalks, recreational open space, and residential zones to align with the specific needs of these areas.

Policy CD 1.1.2: Update development and infrastructure to retain a consistent image of McFarland's identity.

Program CD 1.1.2.1: Maintain design standards for aesthetic consistency of architecture and public spaces.

Program CD 1.1.2.2: Seek uniform aesthetics when replacing existing public lights, trashcans, and benches.

Policy CD 1.1.3: Make the City attractive to outsiders.

Program CD 1.1.3.1: Highlight and protect existing landmarks in McFarland.

Program CD 1.1.3.2: Install plaques to describe the relevance of existing landmarks and their histories.

Program CD 1.1.3.3: Use vegetation and signage to mark entrances to create inviting gateways into McFarland.

Policy CD 1.1.4: Maintain and improve City cleanliness.

Program CD 1.1.4.1: Implement a volunteer trash collecting program to keep key circulation routes trash-free and clean.

Goal CD 2: A thriving central town core.

Objective CD 2.1: Define the uses of the town core.

Policy CD 2.1.1: Incentivize mixed use and high-density development in the town core.

Program CD 2.1.1.1: Raise funds at community events to help ease the costs of development.

Program CD 2.1.1.2: Provide tax incentives on new mixed use and high-density developments.

Objective CD 2.2: Promote cultural activities and events.

Policy CD 2.2.1: Increase the frequency of scheduled events.

Program CD 2.2.1.1: Focus the promotion of cultural activities and events in the downtown core and in centralized public parks.

Program CD 2.2.1.2: Streamline the process for reserving public park space for events.

Program CD 2.2.1.3: Encourage events organized by community organizations.

Goal CD 3: An accessible and safe community.

Objective CD 3.1: Increase safety and comfort in commercial and recreational areas.

Policy CD 3.1.1: Enforce design which promotes safety of the community.

Program CD 3.1.1.1: Add lighting and improved accessibility in public areas and along public thoroughfares.

Program CD 3.1.1.2: Re-align the east side of the Highway 99 crossing entrance to be more inviting and attractive.

Objective CD 3.2: Encourage the building of sidewalks and bike lanes on key roadways for "complete streets".

Policy CD 3.2.1: Promote the use of non-motorized modes of transportation.

Program CD 3.2.1.1: Add painted bike lanes to streets which connect to commercial and recreational areas.

Program CD 3.2.1.2: Use planting buffers to separate bike paths from vehicle traffic.

Program CD 3.2.1.3: Widen sidewalks for pedestrian comfort and safety.

Policy CD 3.2.2: Improve roadway surfaces.

Program CD 3.2.2.1: Encourage the identification and mitigation of road hazards as part of traffic impact studies.

18. PUBLIC FACILITIES

18.1 Introduction

The Public Facilities Element provides a comprehensive framework for development of public facilities and services within the City. Public facilities and services are the backbone of a city and essential to its continued operation and future development. Quality of life in McFarland is related to the quality of schools, police protection, and continued functioning of essential services and infrastructure. While the State does not mandate that a General Plan contain a separate Public Facilities Element, the topics covered within this distinct element are essential in planning for McFarland's future. The Public Facilities Element has overlaps with other elements in the General Plan, including Conservation, Health, Open Space, and Safety. However, Public Facilities is set apart by its introspective look at publicly owned facilities within the City with an eye on capacities and potential to keep up with future growth.

The goals, objectives, policies, and programs outlined in the Public Facilities Element are in accordance with federal, state, and local standards and reflect the community input gathered from multiple community meetings. Topics examined in this chapter include water supply, stormwater, wastewater, recycling and solid waste, police and fire services, school facilities, and library facilities. This element addresses the need for adequate community services and utilities to accommodate population growth and ensure a high quality of life for residents of McFarland.

18.2 Goals, Objectives, Policies, and Programs

Goal PF 1: A city with high-quality and efficient public utilities.

- **Objective PF 1.1:** Improve the water quality for residents and maintain sound and well-maintained water infrastructure.
  - **Policy PF 1.1.1:** Protect water quality.
    - **Program PF 1.1.1.1:** Continue monitoring water quality in accordance with SSJMUD monitoring standards and publish results as available.
    - **Program PF 1.1.1.2:** Continue to monitor the condition of pipes and general infrastructure for water distribution
- **Objective PF 1.2:** Maintain and expand utility infrastructure for the City, prioritizing projects where capacity has been reached.
  - **Policy PF 1.2.1:** Avoid disproportionately burdening certain neighborhoods with construction or maintenance costs.
    - **Program PF 1.2.1.1:** Create a master plan for infrastructure improvements into the future.
    - **Program PF 1.2.1.2:** Distribute costs of large infrastructure improvement projects and services equitably.
  - **Policy PF 1.2.2:** Accommodate future need for sewage infrastructure.
    - **Program PF 1.2.2.1:** Examine existing sewage capacity and project increases in use.

Program PF 1.2.2.2: Expand sewer facilities in Eastern McFarland, including the construction of a new wastewater treatment plant.
Program PF 1.2.2.3: Designate uncultivated or fallowed land into temporary and permanent areas for groundwater recharge.
Program PF 1.2.2.4: Direct treated wastewater from expanded sewer facilities to designated areas for groundwater recharge.

Policy PF 1.2.3: Accommodate future need for stormwater infrastructure.
Program PF 1.2.3.1: Examine existing stormwater capacity and project increases in runoff.
Program PF 1.2.3.2: Pursue the creation of new stormwater basins and facilities to match increases in population and area.

Goal PF 2: A city that addresses solid waste efficiently.

Objective PF 2.1: Maintain adequate solid waste facilities.
Policy PF 2.1.1: Provide enough solid waste disposal services for residents and businesses.
Program PF 2.1.1.1: Examine the current waste trends and the capacity of R & F Disposal facilities.
Program PF 2.1.1.2: Continue providing efficient and cost-effective service to residents and businesses in collaboration with R & F Disposal Services or similar provider.
Objective PF 2.2: Reduce the City's waste stream.
Policy PF 2.2.1: Expand recycling and composting citywide.
Program PF 2.2.1.1: Develop and implement a citywide composting program in collaboration with R & F Disposal Services or other entity.
Program PF 2.2.1.2: Establish targets for expansion of recycling and composting within McFarland.
Policy PF 2.2.2: Reduce total waste generation by residents and businesses within the City.
Program PF 2.2.2.1: Develop outreach materials for residents and businesses to decrease the amount of disposed materials.

Goal PF 3: A safe and peaceful community.

Objective PF 3.1: Provide exemplary police service to residents and businesses.
Policy PF 3.1.1: Maintain adequate police staffing levels and equipment.
Program PF 3.1.1.1: Continue to fund and hire police personnel toward the goal of one officer per 1,000 population.
Objective PF 3.2: Provide enough fire services for residents and businesses.
Policy PF 3.2.1: Maintain adequate staff and equipment in collaboration with Kern County.
Program PF 3.2.1.1: Continue to fund, budget, and maintain the contracted fire services from Kern County.

Goal PF 4: A high-quality education system.

Objective PF 4.1: Increase the capacity of school facilities which have reached or are near enrollment capacity.

Policy PF 4.1.1: Coordinate rehabilitation and maintenance of existing facilities with the McFarland School District.

Program PF 4.1.1.1: Expand according to the McFarland School District's growth plan.

Program PF 4.1.1.2: Identify where additional school capacity is needed based on proposed future development utilizing the most recent McFarland School District *School Enrollment Projections* report.

Objective PF 4.2: Expand alternative educational opportunities, such as vocational training and trade schools, for residents.

Policy PF 4.2.1: Develop alternative educational opportunities within McFarland.

Program PF 4.2.1.1: Identify sectors where job and vocational training are in high demand.

Program PF 4.2.1.2: Develop vocational training in collaboration with the local school and community college districts.

Goal PF 5: A community with a healthy youth and political environment.

Objective PF 5.1: Expand youth programs citywide.

Policy PF 5.1.1: Promote the mental and physical well-being of students.

Program PF 5.1.1.1: Create supportive services for youth in the community in collaboration with public and private partners.

Objective PF 5.2: Increase interaction and participation of community members in decision-making processes.

Policy PF 5.2.1: Increase engagement and outreach efforts.

Program PF 5.2.1.1: Organize multiple social and cultural events within the City.

Program PF 5.2.1.2: Advertise community meetings with social media posts and school announcements.

Program PF 5.2.1.3: Promote civic engagement and interest among students in collaboration with the local school district.

Program PF 5.2.1.4: Gather input with surveys and other methods of gathering student input in collaboration with school administrators.

Program PF 5.2.1.5: Regularly update internet resources, such as the City website and other means, to maintain up to date information on City government processes.

Goal PF 6: Safe and accessible facilities citywide.

Objective PF 6.1: Construct and maintain lighting in critical areas within McFarland.

Policy PF 6.1.1: Improve safety near parks, schools, and other pedestrian corridors.

Program PF 6.1.1.1: Conduct a lighting audit to determine where lighting is most needed in collaboration with the Tri-Agency.

Program PF 6.1.1.2: Pursue funding opportunities for construction and maintenance of lighting facilities.

Program PF 6.1.1.3: Meet lighting operating costs with special assessment fee on businesses.

Objective PF 6.2: Construct and repair sidewalks throughout McFarland.

Policy PF 6.2.1: Follow priorities outlined in the Circulation Element of the General Plan.

Program PF 6.2.1.1: Determine where the greatest need for improved sidewalks exists in collaboration with the Tri-Agency Committee.

Program PF 6.2.1.2: Improve safe student access to schools with Safe Routes to School grants.

19. SUSTAINABLE AGRICULTURE

19.1 Introduction

The Sustainable Agriculture Element is to assure protection for existing open and agriculturally productive lands, while allowing for responsible conversion of open space land for needed housing and commercial development during the future development of McFarland. The Sustainable Agriculture Element recognizes agriculture as an industry which produces and processes food, fiber, plant materials, and livestock. The purpose of the element is to establish policies to ensure the stability and productivity of the agricultural lands and industries in and around McFarland. The intent of the Element is to provide guidance, policies, and programs for decisions on agricultural lands, to promote and protect the future needs of the agricultural industry, and to encourage the maintenance of a healthy agricultural sector within the area's economy.

McFarland hosts agricultural fields and Williamson Act parcels with high quality soils on the edges of City limits and in the surrounding area. When it becomes necessary to convert any land under agricultural use into residential and complimentary park space to accommodate the City's growth careful steps are to be taken to continue to give priority to agriculture.

The Sustainable Agriculture Element has overlaps and remains consistent with other elements of the General Plan. It interacts primarily with agriculture-related policies of the Land Use, Conservation, Open Space, and Housing Elements.

The goals, objectives, policies, and programs of the Sustainable Agriculture Element seek to preserve passive open spaces and agriculturally productive lands consistent with the State of California vision to preserve production of authentic rather than manufactured food and to guarantee healthy and sustainable food supply to assure a healthy population and planet.

19.2 Goals, Objectives, Policies, and Programs

Goal AG 1: Protected agricultural resources

Objective AG 1.1: Protect prime farmland from non-agricultural development

Policy AG 1.1.1: Give priority to agricultural uses in agricultural areas.

Program AG 1.1.1.1: Maintain up to date mapping of lands within the City's Sphere of Influence under Williamson Act Contracts.

Program AG 1.1.1.2: In the agricultural zone district, allow agriculture to continue if properties under Williamson Act contracts are annexed into the City.

Program AG 1.1.1.3: Adopt a Right-to-Farm ordinance.

Program AG 1.1.1.4: Promote education of new homebuyers and other residents identifying the potential issues of living next to active agricultural operations

Objective AG 1.2: Protect passive open space resources.

Policy AG 1.2.1: Encourage economically sound development of natural resources.

Program AG 1.2.1.1: Protect open space through Williamson Act and conservation easements, prioritizing areas for continued production by 2025, and committing to easements by 2030.

Program AG 1.2.1.2: Work with the McFarland Park and Recreation District to conduct a facilities condition assessment to help prioritize the needs for passive open space.

Program AG 1.2.1.3: Encourage prioritization in completion of the most cost-effective improvements.

Policy AG 1.2.2: Use sustainable open space management practices.

Program AG 1.2.2.1: Encourage practices that reduce the strain on the hydrological infrastructure.

Program AG 1.2.2.2: Encourage practices that reduce wastewater demand on the flow-limiting wastewater pipe under Highway 99.

Program AG 1.2.2.3: Enact open-space zoning, such as exclusive agriculture zones, large-lot zones, and overlay zones for hazard areas, to be consistent with this plan.

Goal AG 2: Sustainable agricultural development practices

Objective AG 2.1: Balance physical development with agriculture preservation and production

Policy AG 2.1.1: Assess potential impacts of development on agricultural lands.

Program AG 2.1.1.1: Evaluate project impacts on neighboring agricultural lands when approving new developments

Program AG 2.1.1.2: Evaluate Williamson Act contracts within and near City limits and evaluate alternative soil conservation land uses on Prime Farmlands.

Program AG 2.1.1.3: Prioritize the procurement of non-Williamson Act agricultural lands for annexation.

Objective AG 2.2: Grow McFarland's economy through strategic use of soils.

Policy AG 2.2.1: Maintain healthy and productive soils

Program AG 2.2.1.1: Disseminate educational information to farmers on best management practices related to crop rotation to ensure long term yield and soil quality.

Program AG 2.2.1.2: Adopt a community composting program to help support healthy soils.

Program AG 2.2.1.3: Evaluate the prospects of reducing monocultures to reduce soil degradation.

Objective AG 2.3: Assess carbon sequestration opportunities

Policy AG 2.3.1: Research the acquisition of land for carbon sequestration

Program AG 2.3.1.1: Work with subject-matter experts to analyze carbon sequestration potential and seek funding for a pilot program.

Program AG 2.3.1.2: Assist farmers with procuring anaerobic digesters using state cap-and-trade funding to develop new sources of compost for carbon sequestration efforts.

Objective AG 2.4: Achieve groundwater sustainability by 2040

Policy AG 2.4.1: Collaborate and maintain consistency with SSJMUD Management Area Plan

Program AG 2.4.1.1: Encourage participation in SSJMUD In-Lieu Recharge Incentive Program.

Program AG 2.4.1.2: Encourage improvements to individual farming operations that address water use efficiency through SSJMUD On-Farm Efficiency Incentive Program

Program AG 2.4.1.3: Encourage improvements to individual farming operations that address groundwater protection and recharge through SSJMUD On-Farm Recharge Activities Incentive Program.

Program AG 2.4.1.4: Prioritize conversion of lands with lower agricultural potential and non-Williamson Act contract lands from agricultural use to urban use as necessary to accommodate growth.

Program AG 2.4.1.5: Encourage participation in SSJMUD in-District Allocation Structure, which would allow for the transfer of groundwater pumping credits within the District.

Program AG 2.4.1.6: Support SSJMUD to develop and implement a voluntary land fallowing program during droughts when the District may not be able to meet in-District demand from increases in the volume of imported water.

Program AG 2.4.1.7: Support SSJMUD in imposing restrictions that limit groundwater pumping when the District or the entire Subbasin are nearing a condition where they are unable to meet sustainable management criteria even with the implementation of the projects and management actions in the SSJMUD Management Area Plan.

Goal AG 3: A robust agricultural economy that coexists with urban development.

Objective AG 3.1: Coordinate agricultural education and assistance for farmers and farmworkers.

Policy AG 3.1.1: Use agricultural resources efficiently.

Program AG 3.1.1.1: Encourage water-saving measures in farming through user education in McFarland and its sphere of influence to reduce water use and maintain groundwater levels.

Program AG 3.1.1.2: Encourage development in vacant and under-utilized areas within the built environment before expansion into green fields.

Program AG 3.1.1.3: Dedicate open spaces as part of the sustainable development process.

Program AG 3.1.1.4: Cooperate with regional, state, and federal agencies to advance crop rotation education.

Policy AG 3.1.2: Prepare for McFarland's water needs.

Program AG 3.1.2.1: Cooperate with regional, state, and federal agencies such as Drought.gov and the National Integrated Drought Information System (NIDIS) to accurately understand the water demand.

Program AG 3.1.2.2: Cooperate with agricultural industry stakeholders in the City and its Sphere of Influence to promote drought readiness measures.

Program AG 3.1.2.3: Adopt water-wise landscaping at public facilities and parks to reduce demand.

Program AG 3.1.2.4: Showcase drought tolerant landscapes, for instance, with model water-efficient landscapes in public parks, that private citizens could emulate to help encourage broad adoption.

Policy AG 3.1.3: Pursue programs that value agriculture as both a resource and identity.

Program AG 3.1.3.1: Encourage dissemination of educational materials to residents on local agricultural resources.

Program AG 3.1.3.2: Encourage provision of literature and programs in English and Spanish for resident education.

Program AG 3.1.3.3: Encourage assessment of the impact of proposed developments on agricultural production and natural resources in annexation zones.

Policy AG 3.1.4: Protect open space wherever possible.

Program AG 3.1.4.1: Preserve open space in agricultural production and conservation easements where possible.

Program AG 3.1.4.2: Encourage preservation of open space through Williamson Act or other tax-based incentive programs designed to reduce property tax burden on productive farmers.

Program AG 3.1.4.3: Encourage adoption of open space easements to reduce risk and provide a public benefit where safety concerns such as floodable area and pipeline and transmission lines are present.

Policy AG 3.1.5: Designate passive open space of agricultural lands through direct dedication, in lieu fees, or similar measures during the development process.

Program AG 3.1.5.1: Encourage open space dedication commensurate with the number of units proposed either through direct dedication or in lieu fees for major subdivisions of 4 or more parcels.

Program AG 3.1.5.2: Encourage access easement dedication or in lieu fees for minor subdivisions of 3 parcels or fewer.

Program AG 3.1.5.3: Develop a capital improvement process for funding new passive open spaces.

Goal AG 4: Authentic, healthy, and sustainable food production for healthy people and planet

Objective AG 4.1: Maintain and improve authentic and healthy food production

Policy AG 4.1.1: Promote limited use of pesticides

Program AG 4.1.1.1: Encourage adoption of tolerance levels for pesticide residues in foods

Policy AG 4.1.2: Increase nutrition quality of crops

Program AG 4.1.2.1: Encourage creation of educational programs that teach farmers on increasing nutritional quality of crops

Program AG 4.1.2.2: Encourage funding of agricultural related research to increase quality of crops

Objective AG 4.2: Advocate distribution of healthy foods

Policy AG 4.2.2: Make healthy farming products accessible to the community

Program AG 4.2.2.1: Encourage farm-to-school programs to provide healthy food to students

Program AG 4.2.2.2: Promote establishment of farmers' markets for residents to easily access locally grown crops

Objective AG 4.3: Promote sustainable agricultural practices

Policy AG 4.3.1: Reduce air, water, and climate pollution

Program AG 4.3.1.1: Coordinate with Kern County Air Pollution District to limit practices that produce air pollutants

Program AG 4.3.1.2: Encourage dissemination of information to farmers on irrigation methods and best management practices

Program AG 4.3.1.3: Promote city-wide adoption of alternative energy

Program AG 4.3.1.4: Encourage the education of farmers on integrated pest management to keep pests under control while minimizing use of chemical pesticides

Policy AG 4.3.2: Build and maintain healthy soils

Program AG 4.3.2.1: Support and provide incentives to rotate crops for soil improvement.

Program AG 4.3.2.2: Encourage farmers to monitor soils for organochlorinated pesticides in accordance with DTSC's 2008 Interim Guidance for Sampling Agricultural Properties (Third Revision).

Goal AG 5: A healthy and competitive agricultural industry

Objective AG 5.1: Encourage promotion and marketing of agricultural products grown or processed in the McFarland area.

Policy AG 5.1.1: Promote a wide variety of promotional and marketing activities of McFarland-grown and processed products.

Program AG 5.1.1.1: Permit marketing of products grown or processed in the McFarland area within agricultural use areas.

Program AG 5.1.1.2: Avoid permitting of facilities which generate or handle significant amounts of hazardous material on agricultural lands.

Objective AG 5.2: Bolster the local food economy.

Policy AG 5.2.1: Encourage and support farms and ranches, both large and small, that are seeking to implement programs that increase the sustainability of resources, conserve energy, and protect water and soil in order to increase the viability of diverse farm sizes and types.

Program AG 5.2.1.1: Support expansion in opportunities for farm workers.

Objective AG 5.3: Support agricultural businesses seeking to use organic practices

Policy AG 5.3.1: Recognize the benefits that a flourishing organic sector can provide.

Program AG 5.3.1.1: Support the activities that promote sustainable and organic agricultural production.

Program AG 5.3.1.2: Encourage the exploration of possibilities for production of diverse agricultural products.

Goal AG 6: Stable agricultural uses at the edges and beyond McFarland's urban service area

Objective AG 6.1: Limit intrusion of urban development into agricultural areas.

Policy AG 6.1.1: incentivize long term agricultural use

Program AG 6.1.1.1: Maintain the urban service boundaries to protect agricultural lands at the urban fringe for continued agricultural production.

Program AG 6.1.1.2: Limit extension of urban services such as sewer beyond the urban service boundaries until deemed necessary.

Objective AG 6.2: Reduce economic pressure for conversion of agricultural land to non-agricultural use.

Policy AG 6.2.1: Minimize the influence of speculative land transactions on the price of farmland

Program AG 6.2.1.1: Use voluntary purchase or voluntary transfer of development rights programs to limit intrusion of residential development into agricultural lands.

Program AG 6.2.1.2: Support maintaining the maximum amount of land in parcel sizes that farmers are willing to lease or buy for agricultural purposes.

Policy AG 6.2.2: Minimize the impact of residential parcels on adjacent agricultural operations

Program AG 6.2.2.1: Cluster development parcels to locate lots close to existing residences

Program AG 6.2.2.2: Use natural features such as ridge tops, creeks, and groves of trees to separate parcels from the farming areas wherever practical in areas where clustered subdivision is permitted.

Program AG 6.2.2.3: Place agricultural easements on residual farming parcels at the time that subdivisions are developed where clustered subdivision is permitted to the extent allowed by law.

Program AG 6.2.2.4: Add regulations to the development code to restrict the size and extent of non-agricultural development on agricultural lands.

Goal AG 7: Freedom to manage agricultural operations in an efficient, economic manner with minimal conflict with non-agricultural uses

Objective AG 7.1: Apply agricultural land use categories mainly to areas or parcels capable of the commercial production of food, fiber, and plant materials, or livestock.

Policy AG 7.1.1: Assure that the primary use of any parcel within the agricultural land use category is agricultural production and related processing, support services, and visitor-serving uses.

Program AG 7.1.1.1: Encourage the establishment of agricultural production as the highest priority use on agricultural parcels.

Objective AG 7.2: Protect agricultural operations

Policy AG 7.2.1: Favor protection of the maximum amount of farmable land with buffers

Program AG 7.2.1.1: Encourage the establishment of physical separation of 100 feet to 200 feet at the interfaces of agricultural and residential land uses using topographic features, groves of trees, water courses, landscaped berms, or similar features in creating buffers.

Objective AG 7.3: Apply the provisions of the Right to Farm Ordinance to agricultural lands.

Policy AG 7.3.1: Recognize provisions of existing State nuisance law (Government Code Section 3482.5) in administration of guidelines for agriculture

Program AG 7.3.1.1: Encourage newer uses or applications to mitigate anticipated conflicts with existing agricultural activities.

Goal AG 8: Convenient and accessible co-location of agriculture-related support uses in agricultural production areas

Objective AG 8.1: Facilitate agricultural production by allowing uses, such as processing, storage, bottling, canning, and packaging, and agricultural support services related to the primary agricultural production in the area.

Policy AG 8.1.1: Ensure that agriculture-related support uses on agricultural lands are only allowed when demonstrated to be necessary for and proportional to agricultural production on site or in the local area.

Program AG 8.1.1.1: Encourage the addition of facilities that process agricultural products on agricultural lands.

Program AG 8.1.1.2: Define "agricultural support services" as processing services, maintenance and repair of farm machinery and equipment, veterinary clinics, custom farming services, agricultural waste handling and disposal services, and other similar related services.

Program AG 8.1.1.3: Approve support uses that are subordinate to on-site agricultural production and would not adversely affect agricultural production in the area.

Program AG 8.1.1.4: Determine "subordinate" status from the portion of the site, extent of structures, and relative number of employees devoted to the service in comparison to agricultural production on the site.

Program AG 8.1.1.5: Apply criteria in determining sustainability of related uses to include potential traffic impacts of uses, amount of water uses

would draw from the same aquifer of area wells, and potential detrimental effect of uses on the rural character of the area.

Goal AG 9: Adequate supply of farm worker and farm family housing

Objective AG 9.1: Permit farm family housing units in addition to the number of dwellings allowed on farmlands.

Policy AG 9.1.1: Permit permanent employee housing in addition to permitted housing density according to the needs of sectors in the agricultural industry.

Program AG 9.1.1.1: Encourage farm operators to provide sufficient housing in addition to housing permitted by applicable density for permanent and seasonal agricultural employees and for family members to maintain agricultural production activities.

Program AG 9.1.1.2: Locate agricultural employee housing where it promotes efficiency of the farming operation and has minimal impact on productive farmland.

Program AG 9.1.1.3: Assist nonprofit organizations or agencies in their efforts to establish programs to provide safe and adequate housing for farm workers.

Program AG 9.1.1.4: Allow clustering of agricultural employee housing on a portion of a parcel or a noncontiguous parcel under the same ownership to assure units are close to the primary use.

Program AG 9.1.1.5: Work with lending institutions to develop ways to finance housing construction without encumbering the entire farm and without requiring subdivisions.

Program AG 9.1.1.6: Permit housing for seasonal workers as needed to serve the agricultural industries of the area.

Goal AG 10: Available alternative resources for agricultural production

Objective AG 10.1: Continue participation in the Williamson Act and Farmland Security Zone programs.

Objective AG 10.2: Establish voluntary programs for purchase and transfer of development rights.

Objective AG 10.3: Encourage the use of recycled water

Policy AG 10.3.1: Assure that the quantity and quality of recycled water is appropriate for the intended use.

Program AG 10.3.1.1: Promote the agricultural reuse of recycled water in a manner which would be economically beneficial to agriculture

Program AG 10.3.1.2: Establish wastewater irrigation districts

Objective AG 10.4: Encourage formulation of programs and evaluate alternative funding sources which offer financial incentives to the farm owner to reduce reliance on subdivision and sale of land to raise operating capital.

Goal AG 11: Rapid and efficient agricultural permit processing procedures

Objective AG 11.1: Simplify and shorten the decision-making process on permits for operations on agricultural lands.

Policy AG 11.1.1: Establish procedures and standards in the Development Code to distinguish those agricultural uses and activities which may be approved by administrative action and to expedite the processing of permits for agricultural and agriculture-related uses.

Program AG 11.1.1.1: Allow concurrent processing of multiple permits for agricultural facilities.

Program AG 11.1.1.2: Provide and expedite permitting assistance to the agricultural industry.

Program AG 11.1.1.3: Streamline permitting for temporary use permits for farmworker housing if the requirements of all appropriate agencies are met.

Program AG 11.1.1.4: Maintain provisions for agriculture exempt structures, subject to limitations on the size, occupancy and use of such structures.

Program AG 11.1.1.5: Work with the County to revise City and County codes and design guidelines for parking, impermeable surfaces, lot coverage, etc. for discretionary agricultural support uses on agricultural lands to reduce or minimize urban style improvements and requirements for agricultural lands.

20. APPENDICES

20.1 Appendix 1 – First Community Meeting Feedback

Residents identified the following strengths in the City of McFarland:

- Strong sense of community, identity, and pride.
- Great churches and faith services.
- Strong support for veterans.
- Sense of safety, peace, and stability in McFarland.
- Family, friendly community.
- Beautification has begun through recent infrastructural improvements.
- Many clubs, organizations, and recreational opportunities are available to residents.
- Schools always have many activities going on.
- Good communication between the City and the community.

Residents identified the following as barriers challenging the City of McFarland:

- Limited pet-friendly areas
- Lack of equality in businesses, services, and beautification efforts across the City
- Limited lighting in public areas
- Much infrastructure is outdated
- Limited athletic events
- Speed limits are not enforced
- Highway does not draw people into McFarland
- Poor connections between the east and west sides of the City
- Lack of regional connections to surrounding communities
- There is no circulation, emergency, and evacuation plan
- Lack of gas stations
- Lack of major businesses
- Limited health care opportunities
- Unemployment is high in the winter
- Missing recreational facilities
- Limited affordable housing opportunities
- Lack of local businesses
- Lack of safety and police services

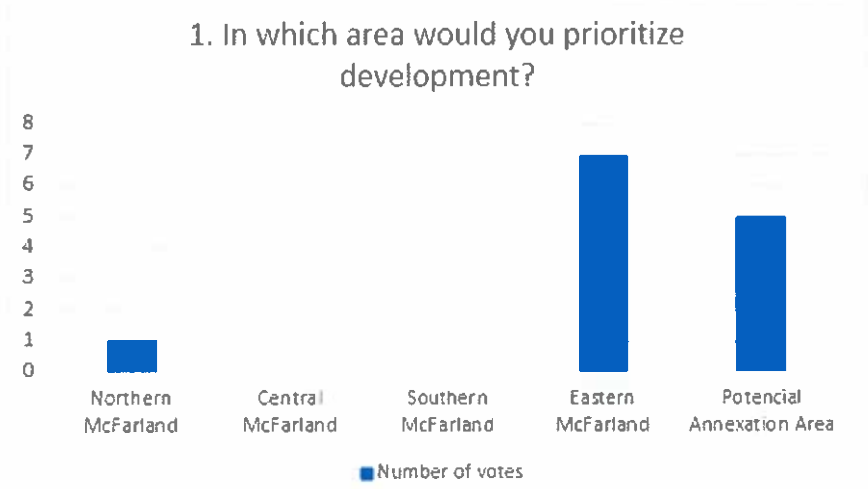
Residents wished for the following:

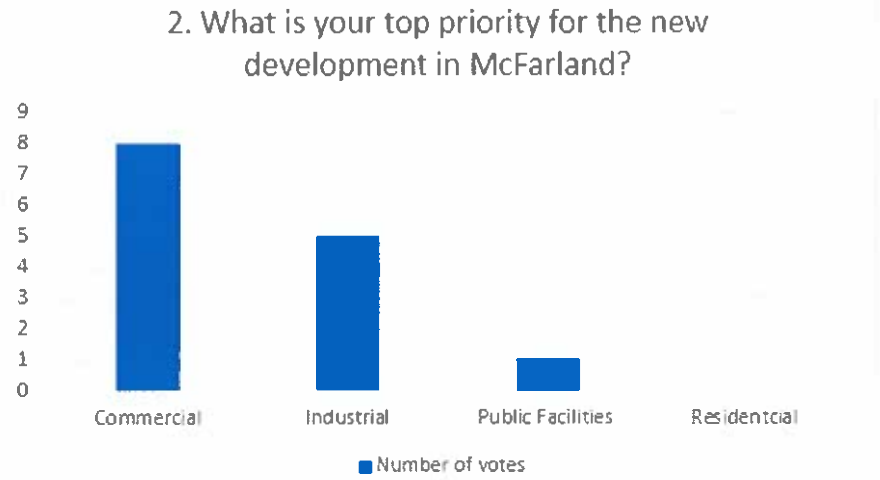
- Incentives for City beautification
- Crossing improvements for Highway 99
- Increase in local businesses and economic development
- Improved highway entrances and traffic control

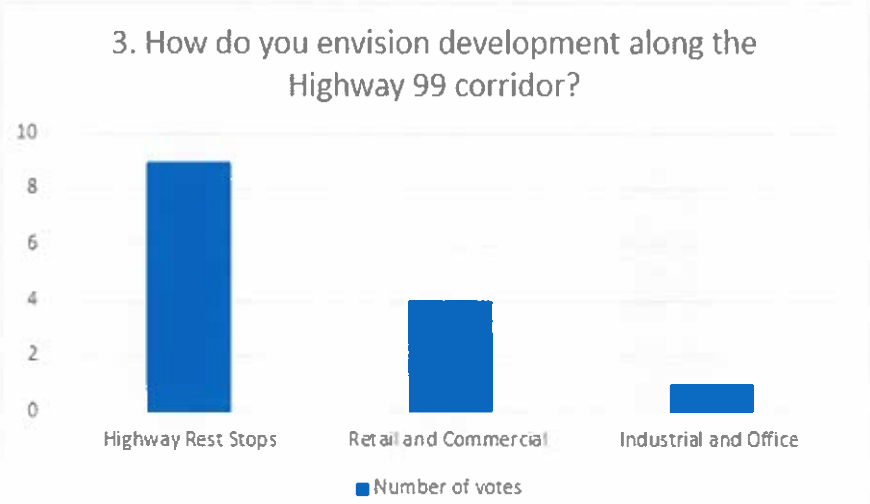
- Integration of trade programs within educational opportunities.
- Further engagement with new technologies
- More opportunities for restaurants, retail, and entertainment
- Opportunities for daycare and senior services
- More variety and affordability in housing stock
- Programs for art and recreation for youth
- New City Hall or government centers
- Implementation of mental health services and education
- Increase in community and cultural events
- Better interaction between government and citizens
- Tertiary water treatment for more usable water

20.2 Appendix 2 – Second Community Meeting Feedback by Element

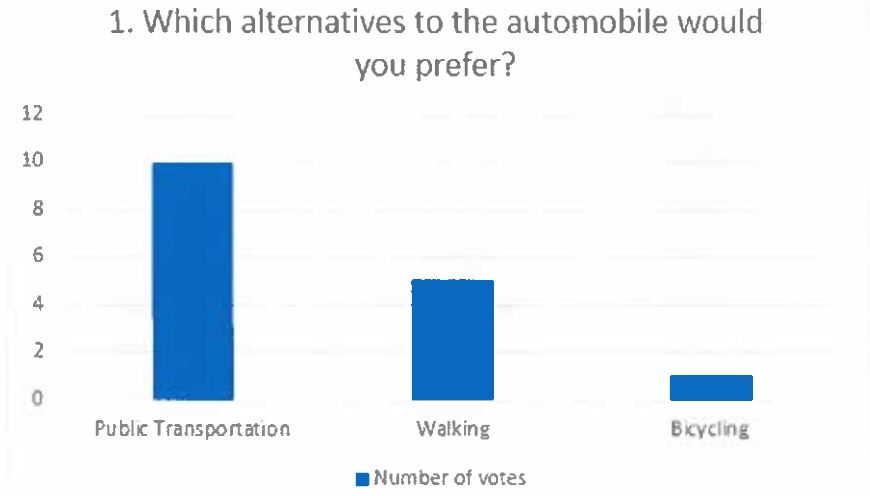
Land Use

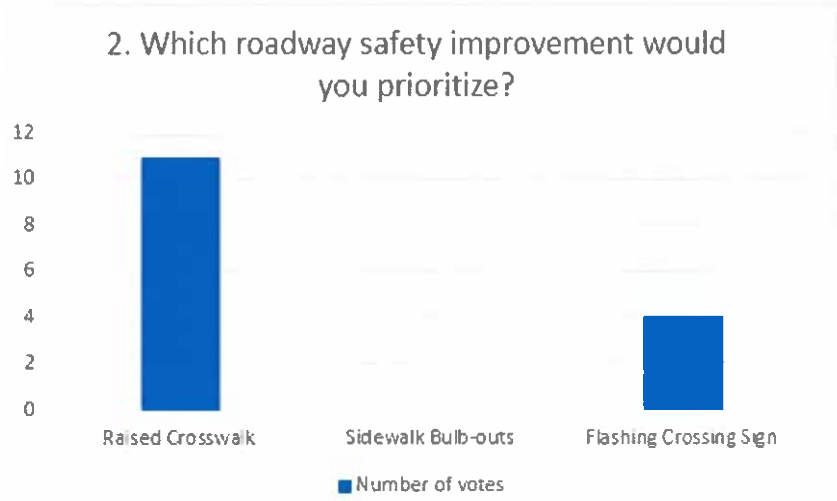


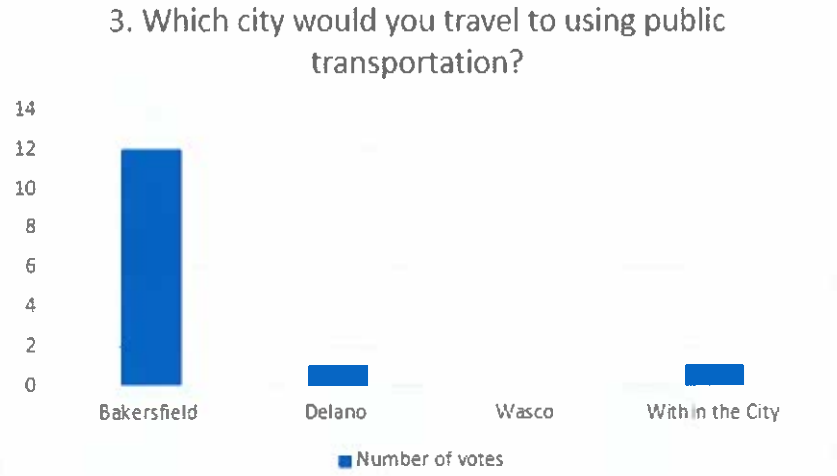


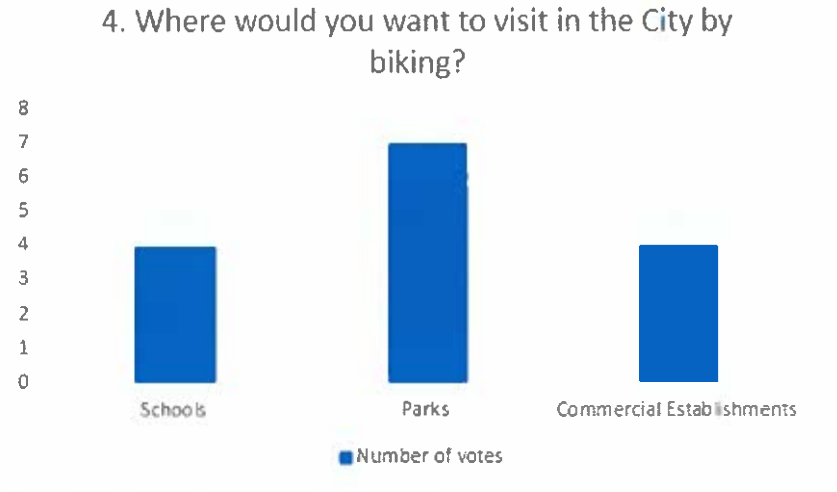


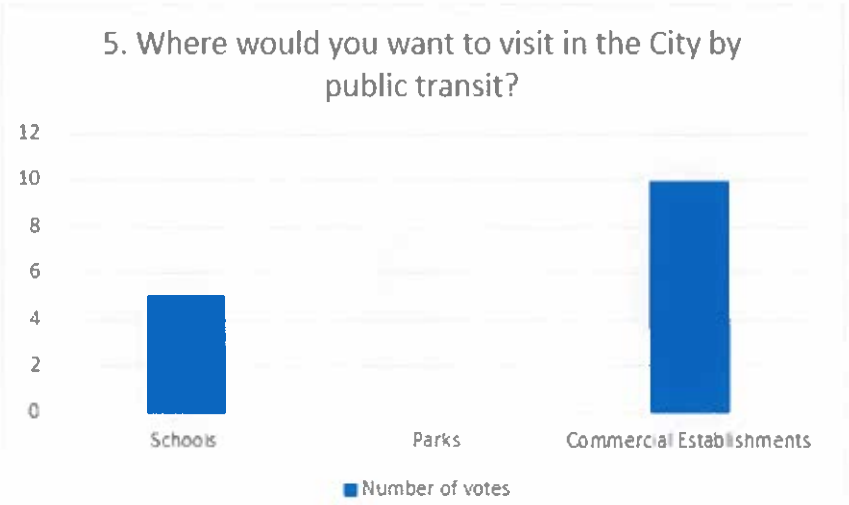
Circulation



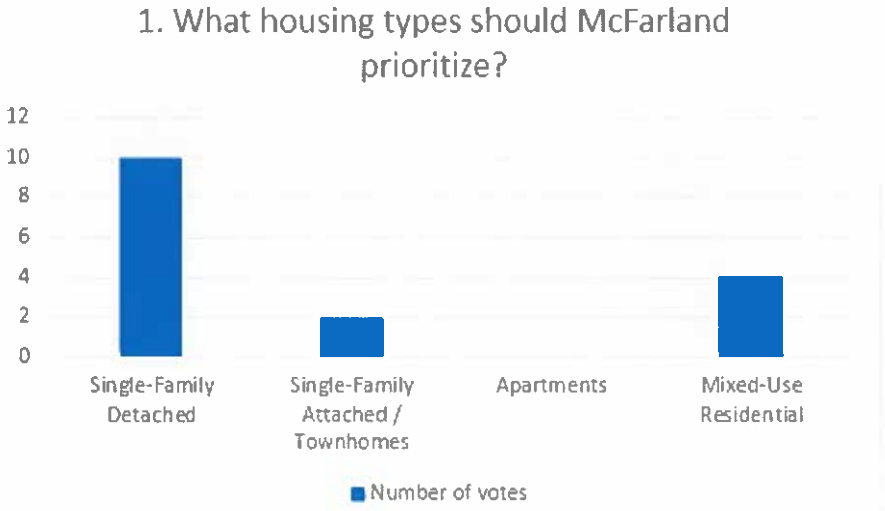

2. Which roadway safety improvement would you prioritize?
12
10
8
6
4
2
0
Raised Crosswalk
Sidewalk Bulb-outs
Flashing Crossing Sign
Number of votes

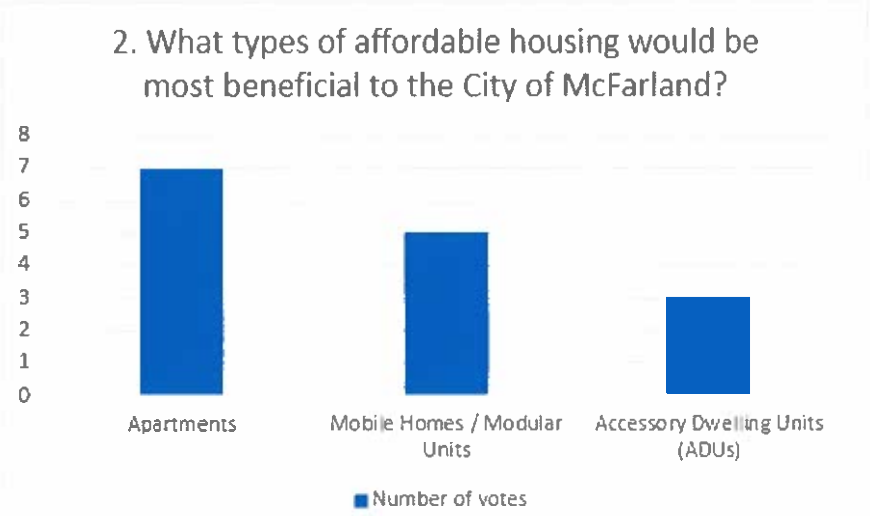

3. Which city would you travel to using public transportation?
14
12
10
8
6
4
2
0
Bakersfield
Delano
Wasco
Within the City
Number of votes

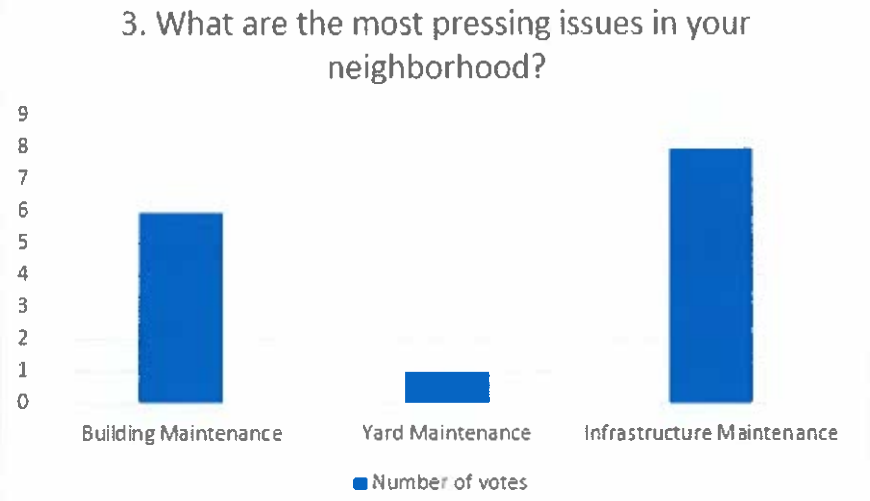

4. Where would you want to visit in the City by biking?
8
7
6
5
4
3
2
1
0
Schools
Parks
Commercial Establishments
Number of votes

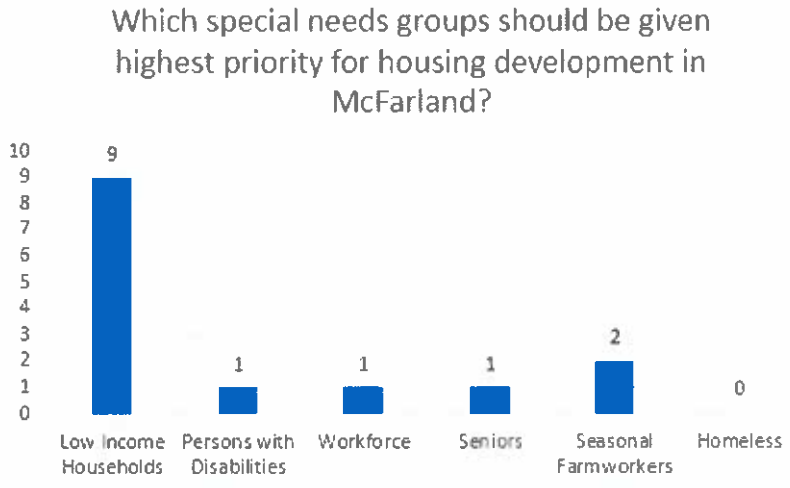

5. Where would you want to visit in the City by public transit?
12
10
8
6
4
2
0
Schools
Parks
Commercial Establishments
Number of votes

Housing

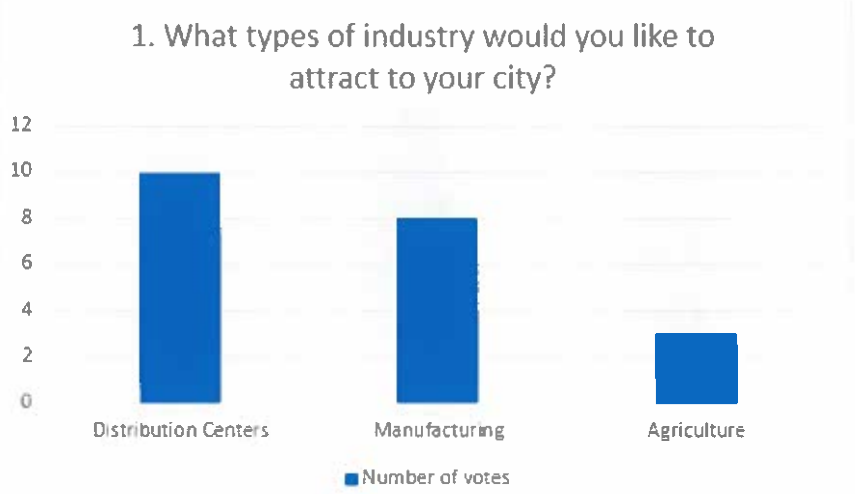

1. What housing types should McFarland prioritize?
12
10
8
6
4
2
0
Single-Family Detached
Single-Family Attached / Townhomes
Apartments
Mixed-Use Residential
Number of votes

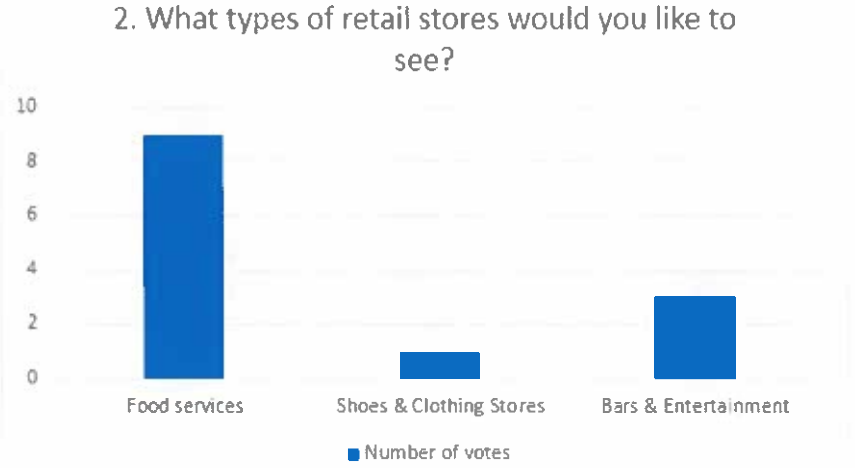

2. What types of affordable housing would be most beneficial to the City of McFarland?
8
7
6
5
4
3
2
1
0
Apartments
Mobile Homes / Modular Units
Accessory Dwelling Units (ADUs)
Number of votes

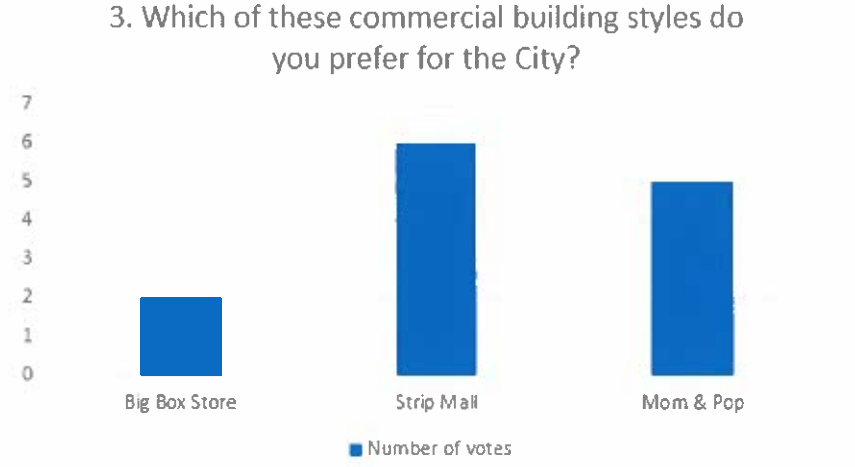

3. What are the most pressing issues in your neighborhood?
9
8
7
6
5
4
3
2
1
0
Building Maintenance
Yard Maintenance
Infrastructure Maintenance
Number of votes

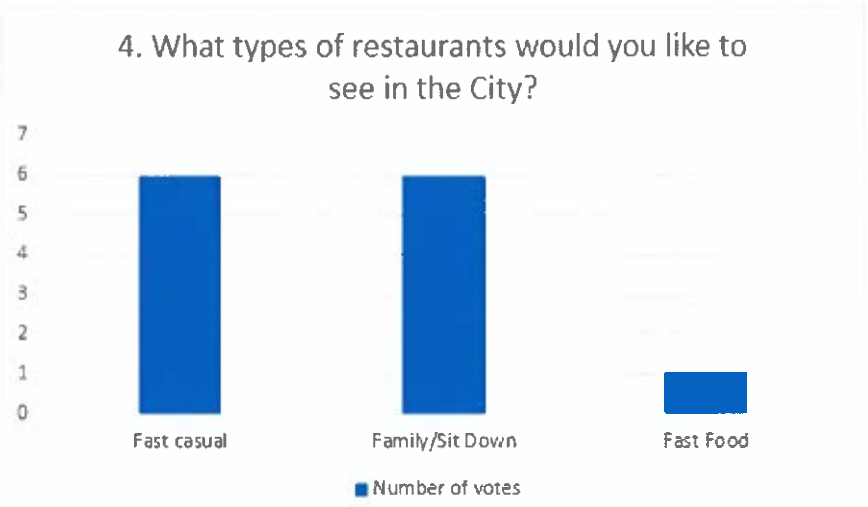

Which special needs groups should be given highest priority for housing development in McFarland?
10
9
8
7
6
5
4
3
2
1
0
9
1
1
1
2
0
Low Income Households
Persons with Disabilities
Workforce
Seniors
Seasonal Farmworkers
Homeless

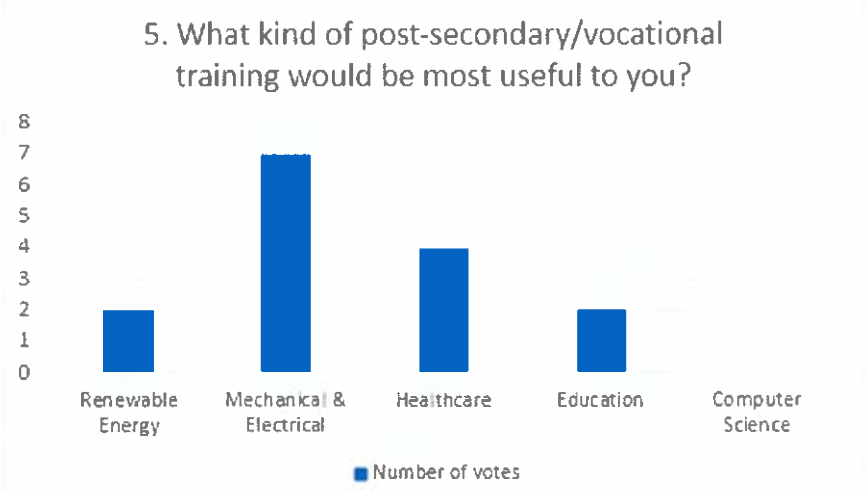
Economic Development



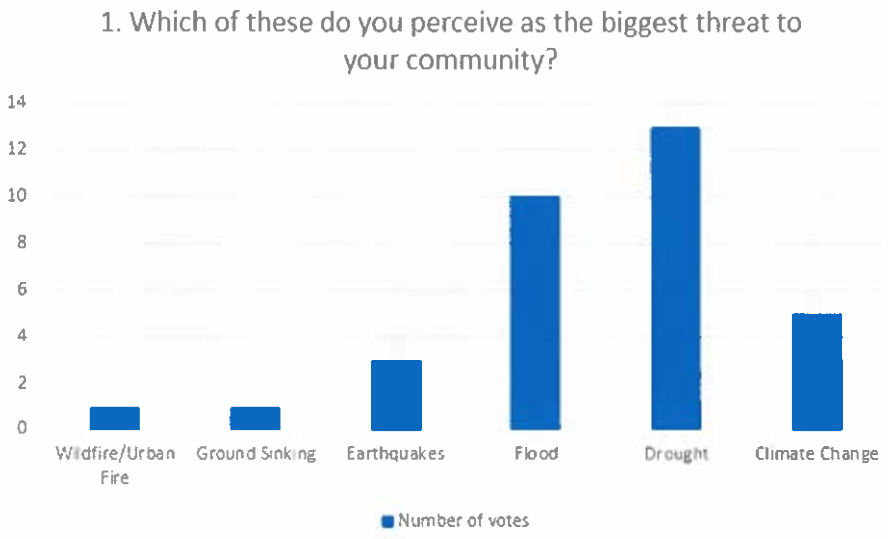


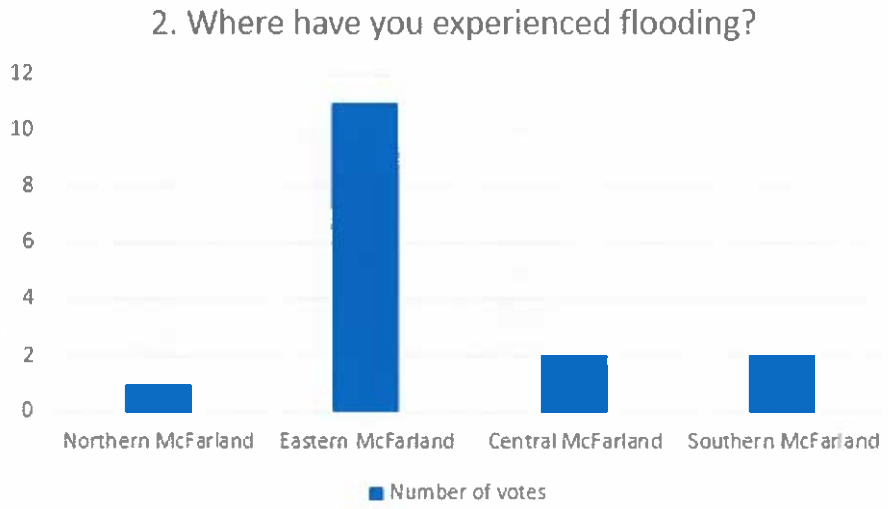



4. What types of restaurants would you like to see in the City?
7
6
5
4
3
2
1
0
Fast casual
Family/Sit Down
Fast Food
Number of votes

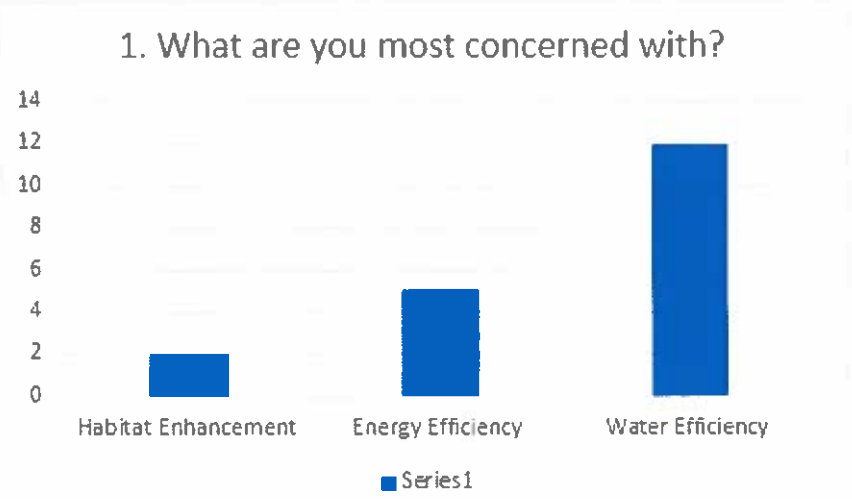

5. What kind of post-secondary/vocational training would be most useful to you?
8
7
6
5
4
3
2
1
0
Renewable Energy
Mechanical & Electrical
Healthcare
Education
Computer Science
Number of votes

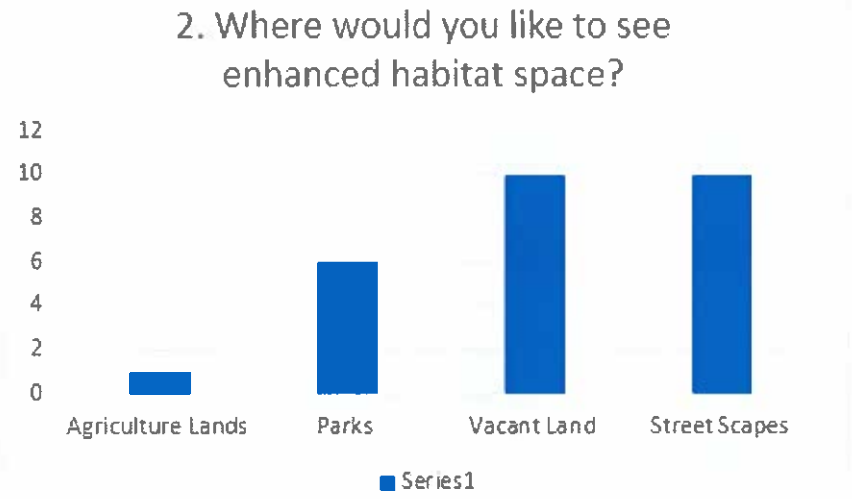
Safety

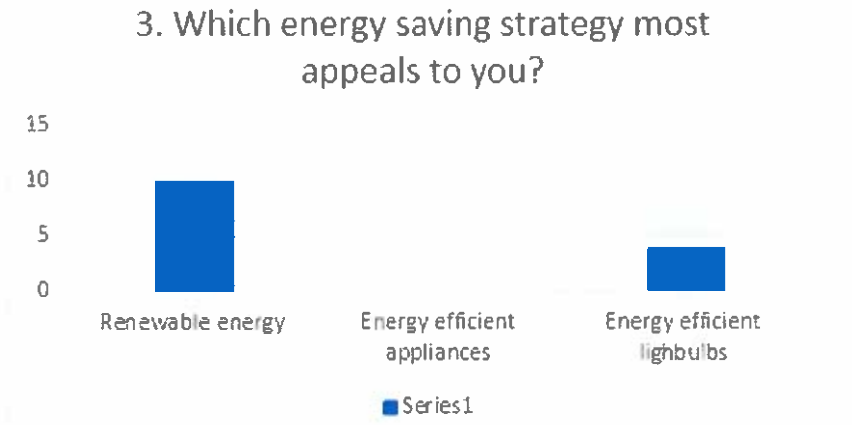


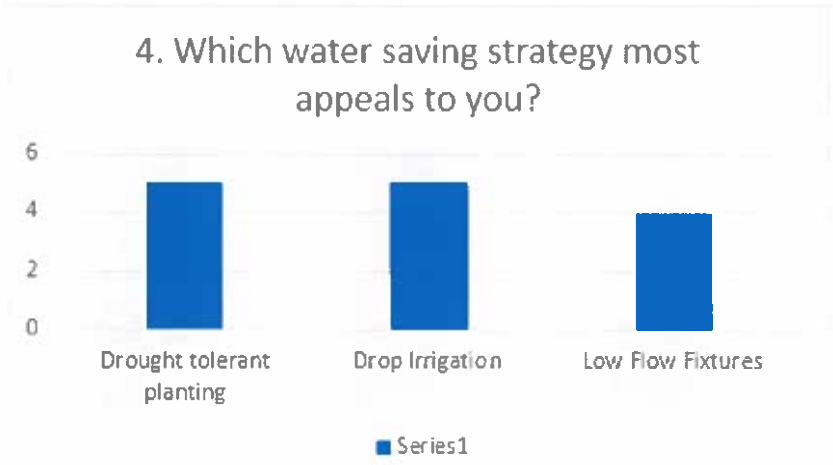


Conservation

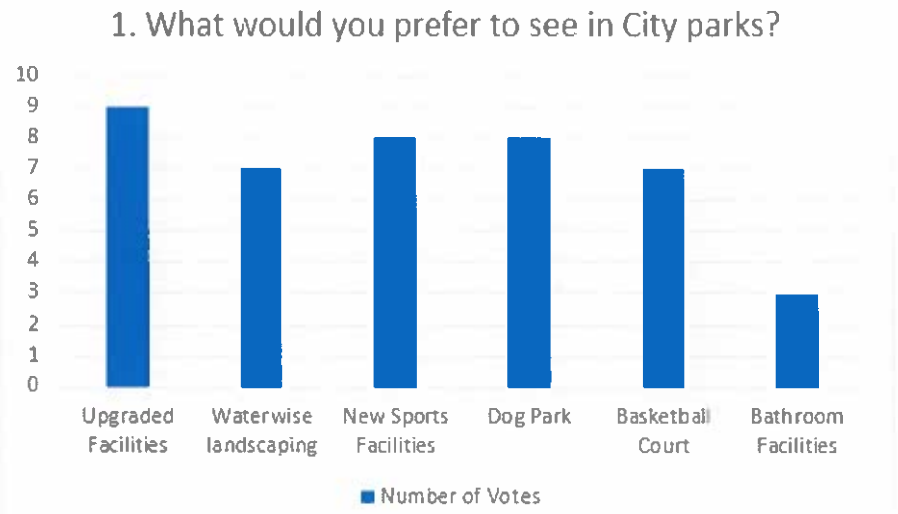

1. What are you most concerned with?
14
12
10
8
6
4
2
0
Habitat Enhancement
Energy Efficiency
Water Efficiency
Series1

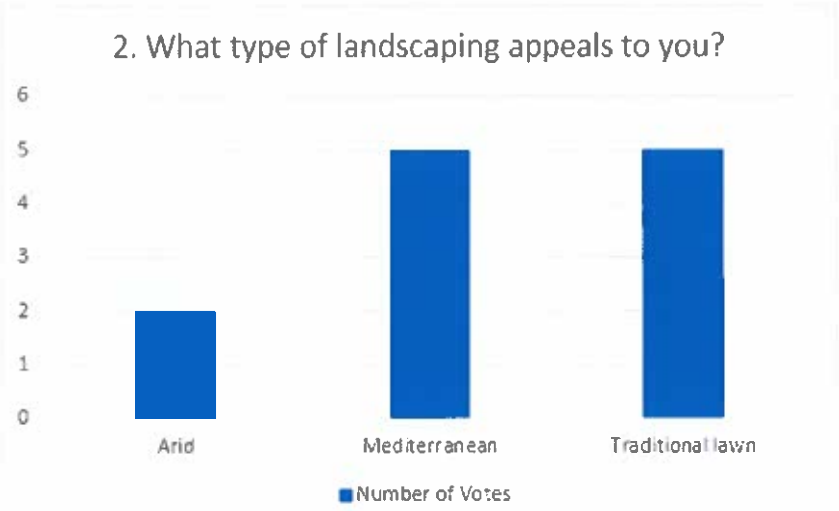

2. Where would you like to see enhanced habitat space?
12
10
8
6
4
2
0
Agriculture Lands
Parks
Vacant Land
Street Scapes
Series1

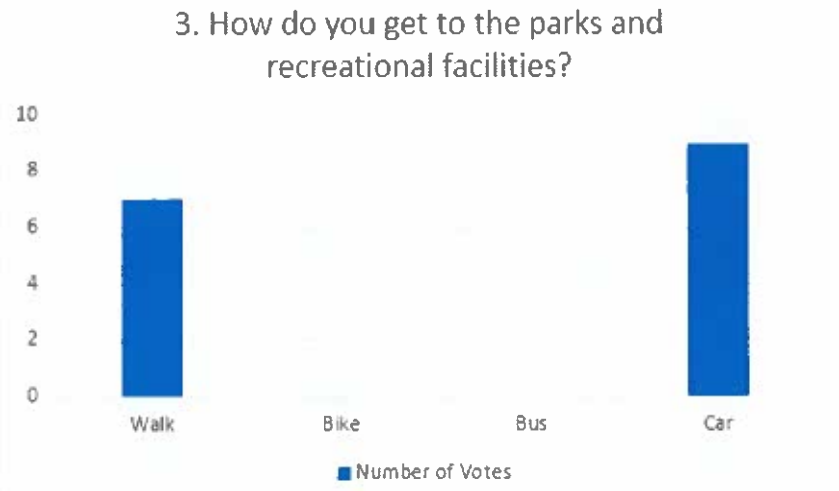

3. Which energy saving strategy most appeals to you?
15
10
5
0
Renewable energy
Energy efficient appliances
Energy efficient lightbulbs
Series1

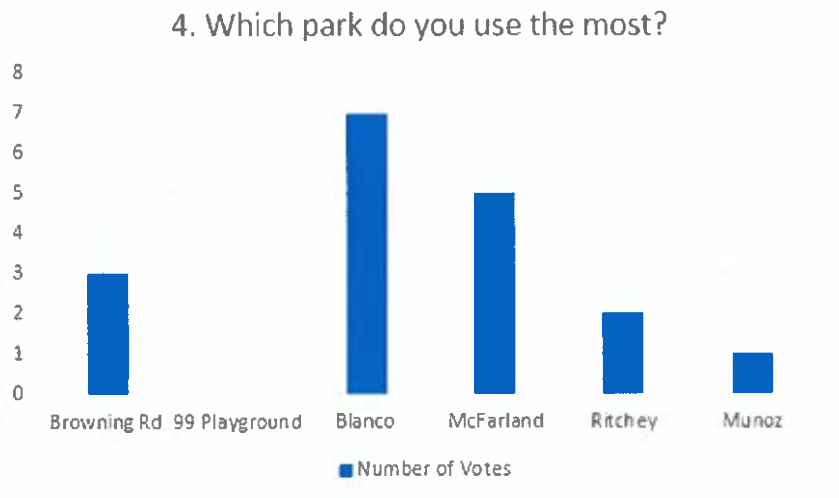

4. Which water saving strategy most appeals to you?
6
4
2
0
Drought tolerant planting
Drop Irrigation
Low Flow Fixtures
Series1

Open Space

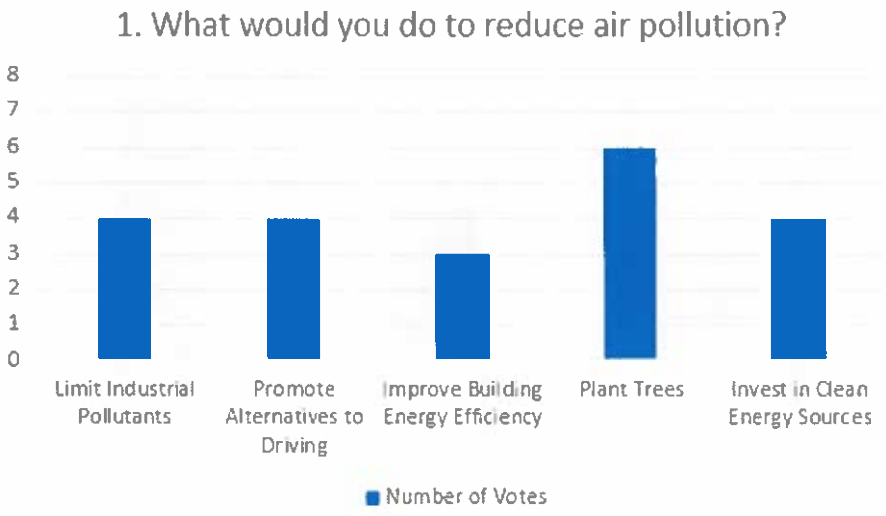

1. What would you prefer to see in City parks?
10
9
8
7
6
5
4
3
2
1
0
Upgraded Facilities
Waterwise landscaping
New Sports Facilities
Dog Park
Basketball Court
Bathroom Facilities
Number of Votes


2. What type of landscaping appeals to you?
6
5
4
3
2
1
0
Arid
Mediterranean
Traditional lawn
Number of Votes

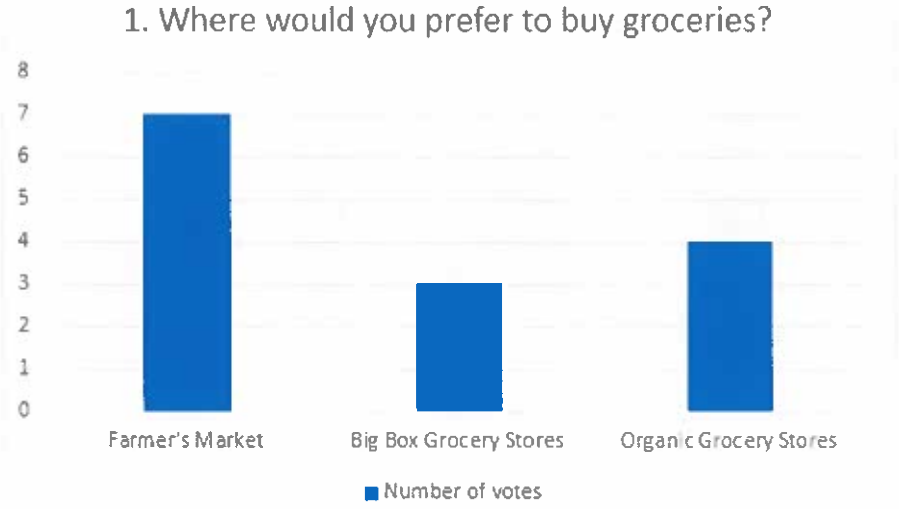

3. How do you get to the parks and recreational facilities?
10
8
6
4
2
0
Walk
Bike
Bus
Car
Number of Votes

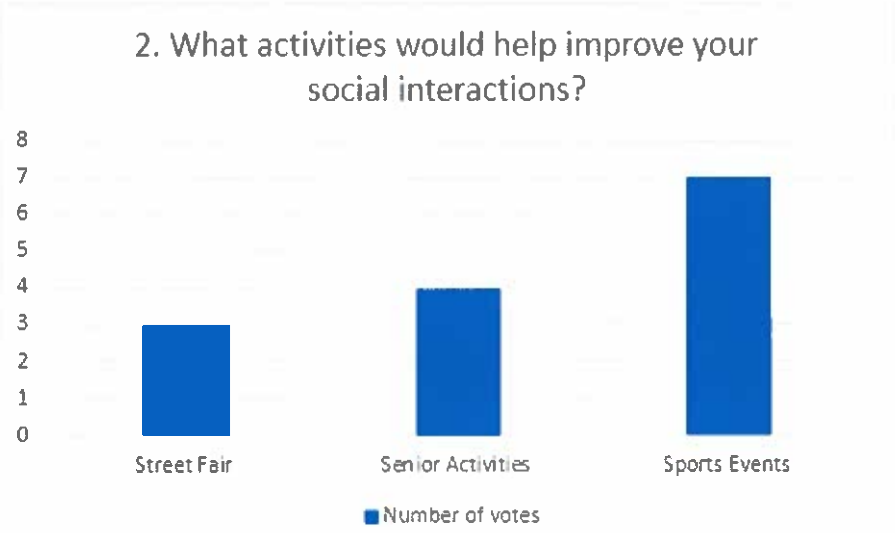

4. Which park do you use the most?
8
7
6
5
4
3
2
1
0
Browning Rd
99 Playground
Blanco
McFarland
Ritchey
Munoz
Number of Votes

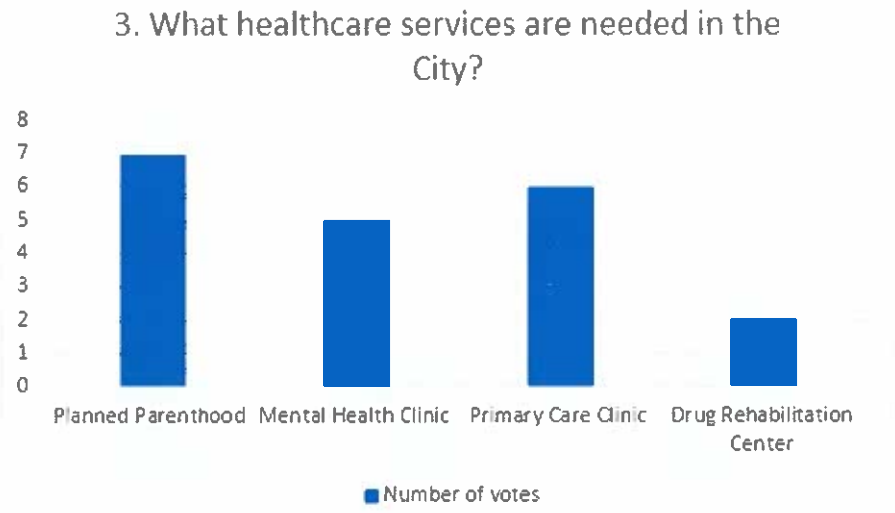
Air Quality



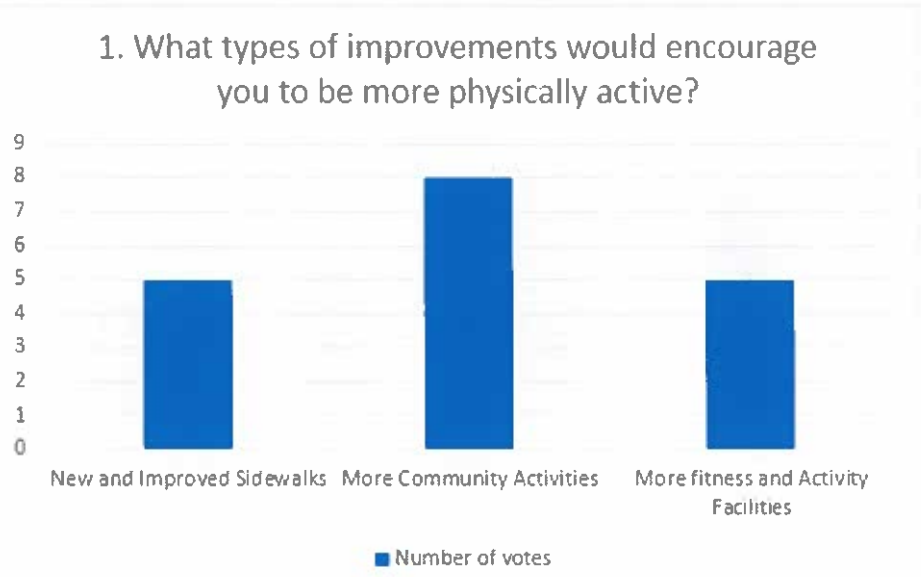
Health

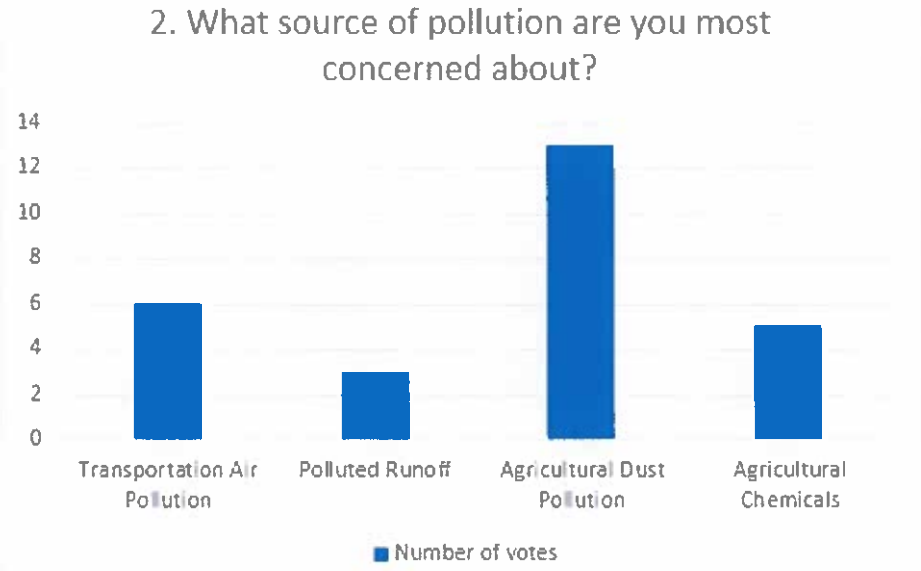


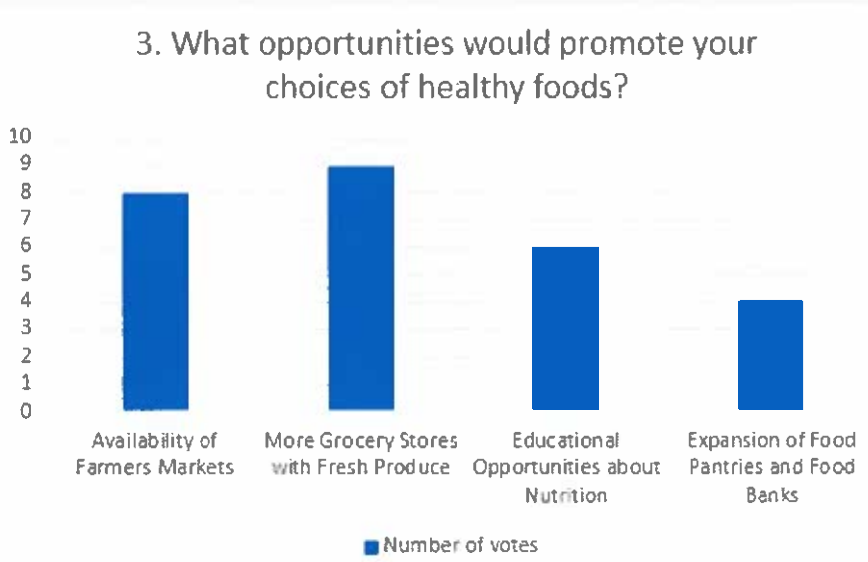


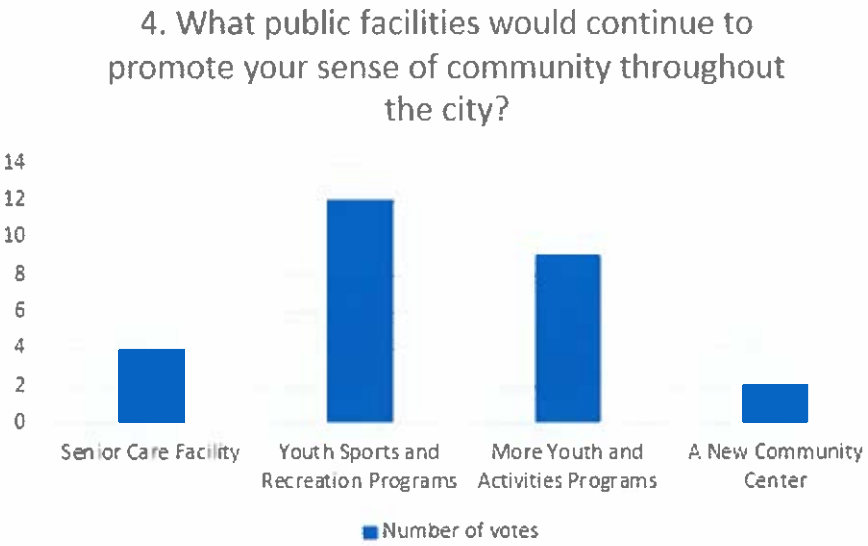


Environmental Justice

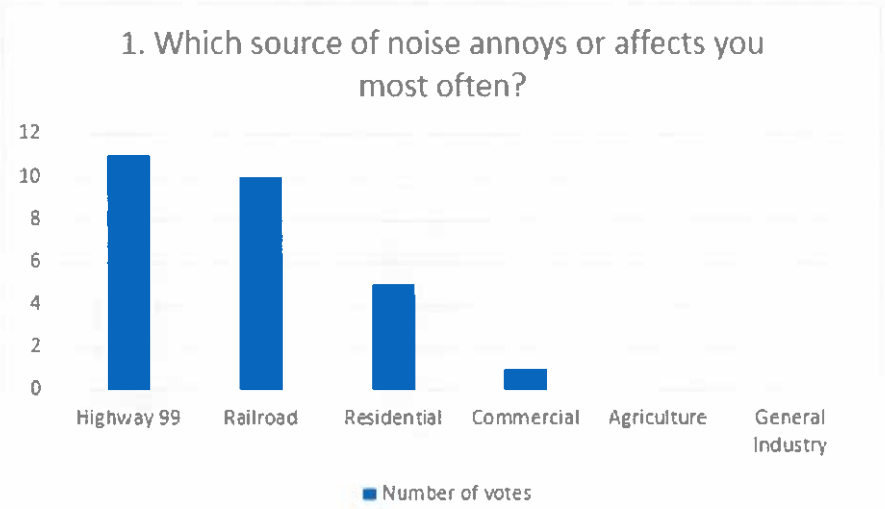

1. What types of improvements would encourage you to be more physically active?
9
8
7
6
5
4
3
2
1
0
New and Improved Sidewalks
More Community Activities
More fitness and Activity Facilities
Number of votes

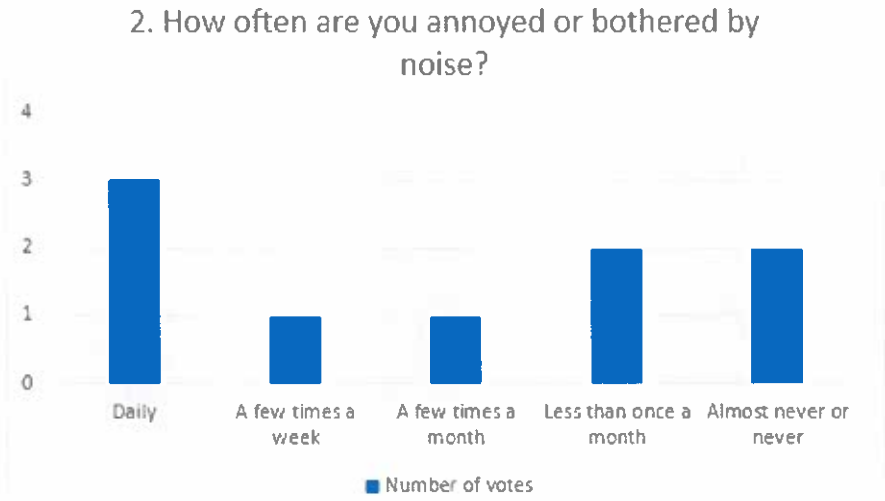

2. What source of pollution are you most concerned about?
14
12
10
8
6
4
2
0
Transportation Air Pollution
Polluted Runoff
Agricultural Dust Pollution
Agricultural Chemicals
Number of votes

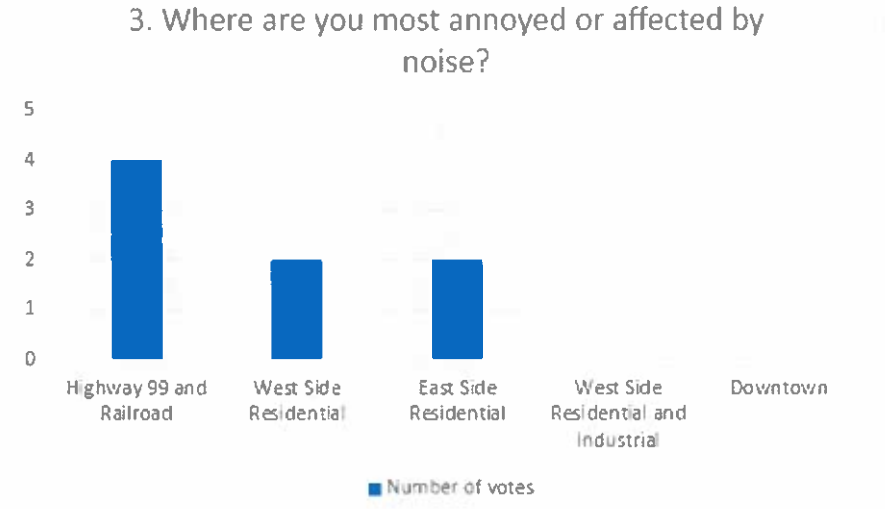

3. What opportunities would promote your choices of healthy foods?
10
9
8
7
6
5
4
3
2
1
0
Availability of Farmers Markets
More Grocery Stores with Fresh Produce
Educational Opportunities about Nutrition
Expansion of Food Pantries and Food Banks
Number of votes


4. What public facilities would continue to promote your sense of community throughout the city?
14
12
10
8
6
4
2
0
Senior Care Facility
Youth Sports and Recreation Programs
More Youth and Activities Programs
A New Community Center
Number of votes

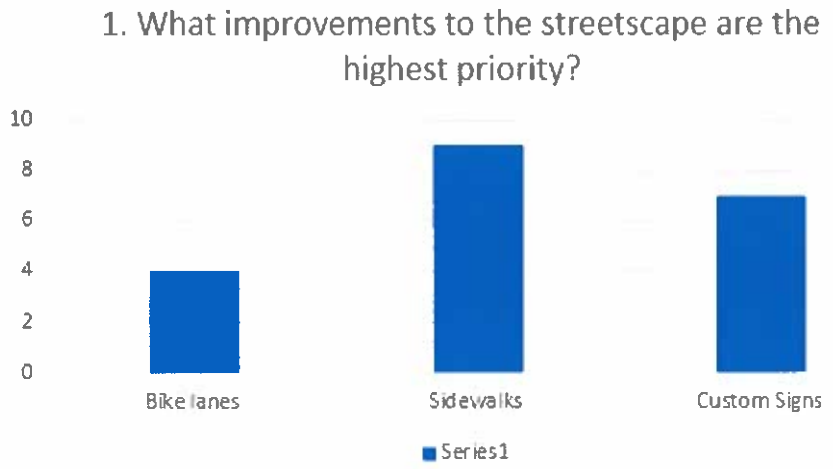
Noise

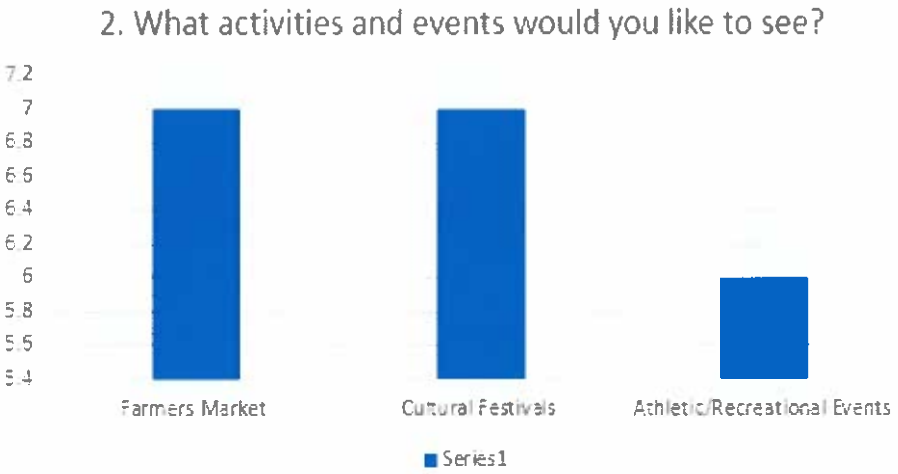

1. Which source of noise annoys or affects you most often?
12
10
8
6
4
2
0
Highway 99
Railroad
Residential
Commercial
Agriculture
General Industry
Number of votes

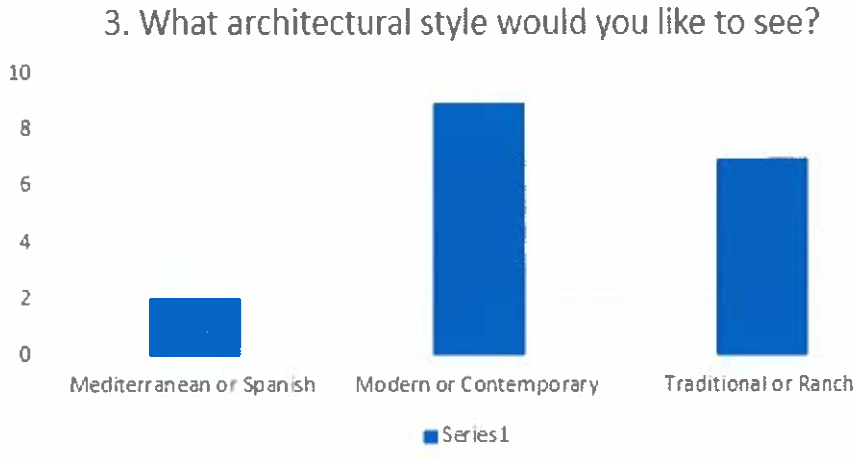

2. How often are you annoyed or bothered by noise?
4
3
2
1
0
Daily
A few times a week
A few times a month
Less than once a month
Almost never or never
Number of votes

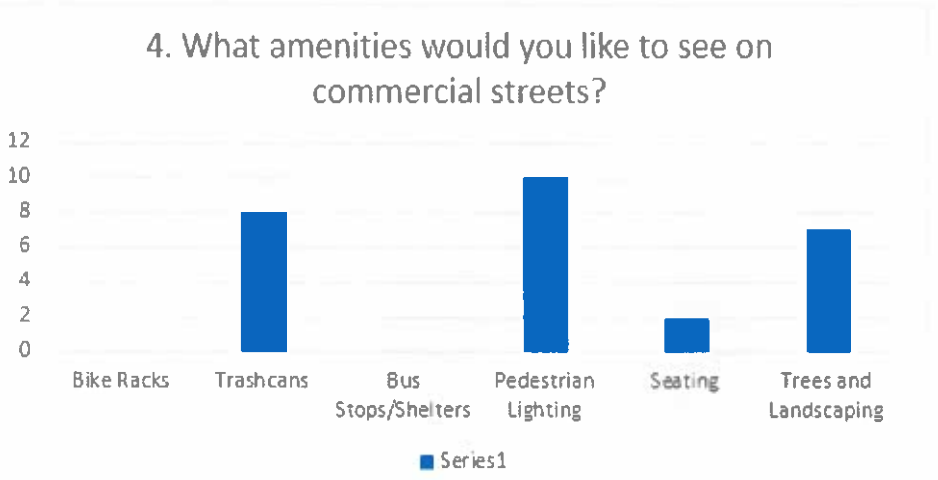

3. Where are you most annoyed or affected by noise?
5
4
3
2
1
0
Highway 99 and Railroad
West Side Residential
East Side Residential
West Side Residential and Industrial
Downtown
Number of votes

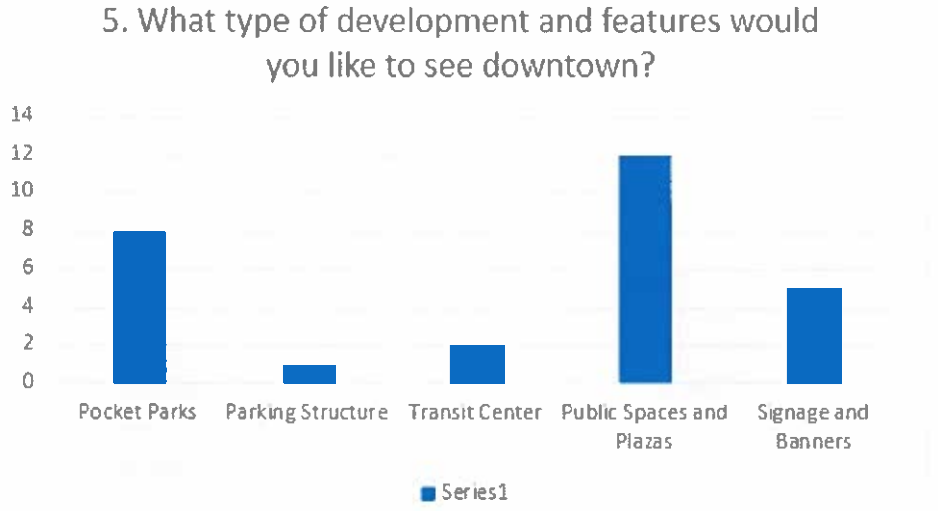
Community Design

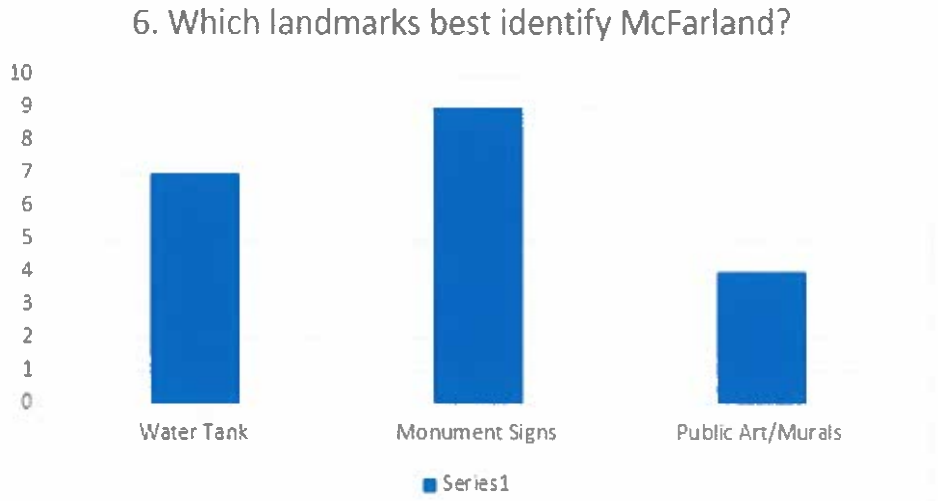




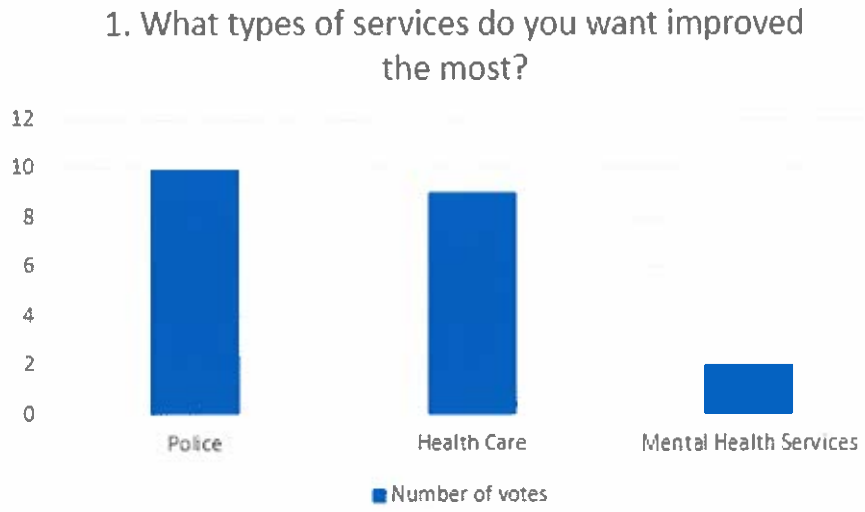


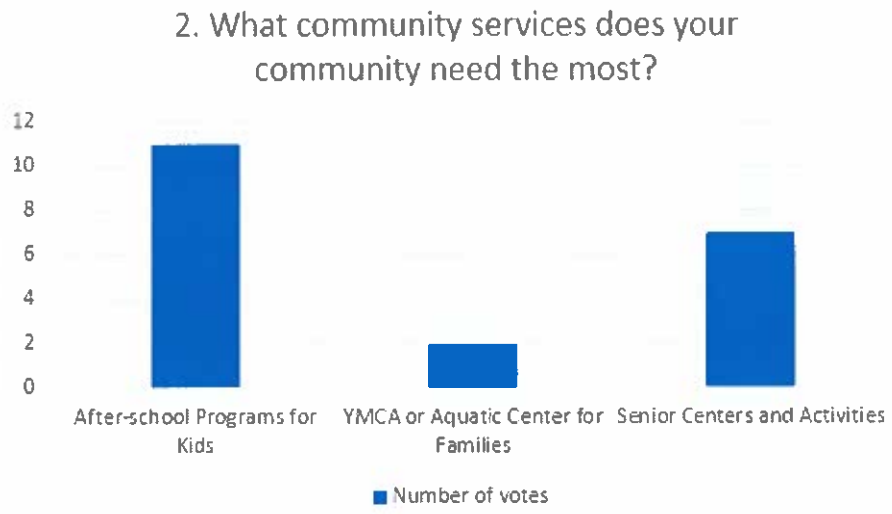

4. What amenities would you like to see on commercial streets?
12
10
8
6
4
2
0
Bike Racks
Trashcans
Bus Stops/Shelters
Pedestrian Lighting
Seating
Trees and Landscaping
Series1

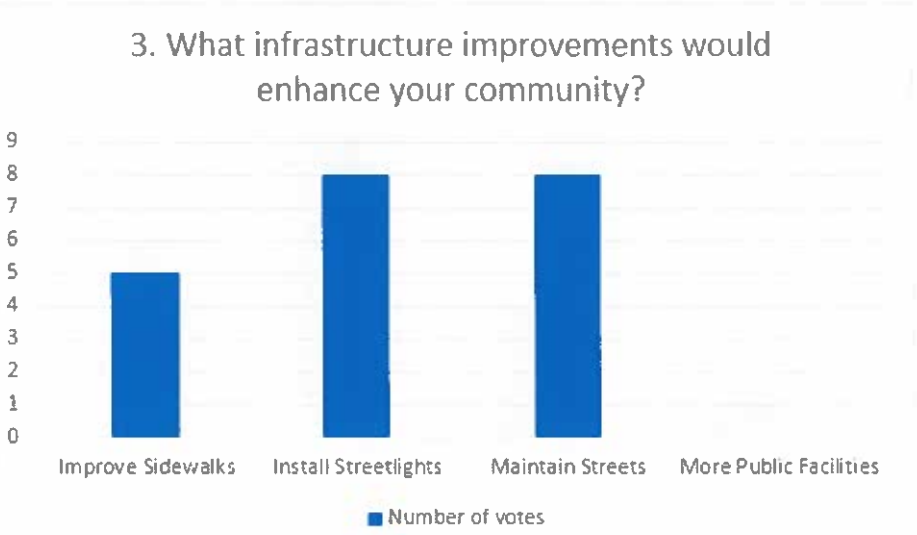

5. What type of development and features would you like to see downtown?
14
12
10
8
6
4
2
0
Pocket Parks
Parking Structure
Transit Center
Public Spaces and Plazas
Signage and Banners
Series1

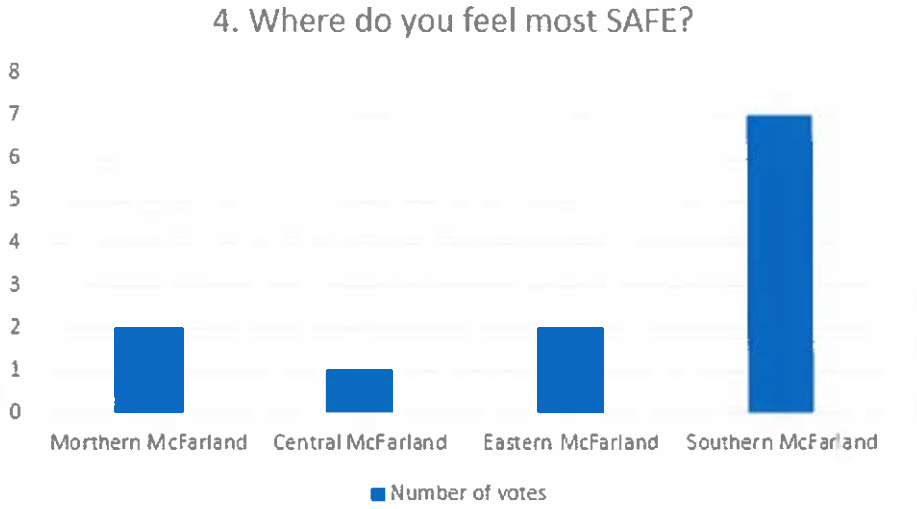

6. Which landmarks best identify McFarland?
10
9
8
7
6
5
4
3
2
1
0
Water Tank
Monument Signs
Public Art/Murals
Series1

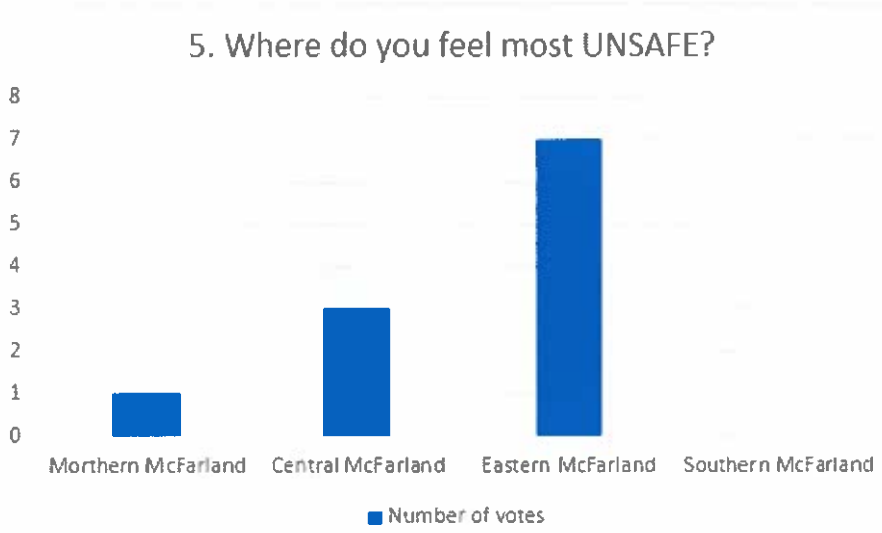
Public Facilities






3. What infrastructure improvements would enhance your community?
9
8
7
6
5
4
3
2
1
0
Improve Sidewalks
Install Streetlights
Maintain Streets
More Public Facilities
Number of votes


4. Where do you feel most SAFE?
8
7
6
5
4
3
2
1
0
Morthern McFarland
Central McFarland
Eastern McFarland
Southern McFarland
Number of votes


5. Where do you feel most UNSAFE?
8
7
6
5
4
3
2
1
0
Morthern McFarland
Central McFarland
Eastern McFarland
Southern McFarland
Number of votes

20.3 Appendix 3 – Third Community Meeting Feedback

At the third community meeting on February 20th, 2020, the community was presented with three alternatives for McFarland's future development: Business as Usual, Redevelopment, and Smart Growth. After the presentation, community members were asked for their preferences regarding the key features and key outcomes for each. This section contains that feedback.

Business as Usual: Outcomes

(5) Loss of Open Space and Agricultural Land



LIKE 13

DISLIKE 11

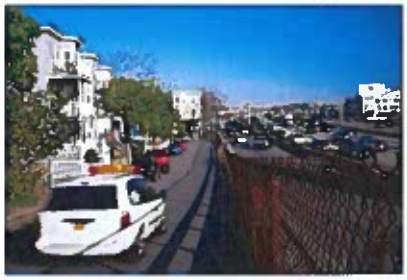
(6) Extensive Development in Floodplains



LIKE 4

DISLIKE 20

(7) Residential Near Highway, Railroad, and Heavy Industry



LIKE 15

DISLIKE 11

(8) Limited Walkability and Connectivity



LIKE 3

DISLIKE 22

CAL POLY

Business as Usual: Key Features

(1) Low-density Residential



LIKE 23

DISLIKE 1

(2) Automobile-oriented



LIKE 15

DISLIKE 8

(3) Highway Commercial Along Highway 99



LIKE 25

DISLIKE 0

(4) Light and Heavy Industry



LIKE 13

DISLIKE 11

CAL POLY

Redevelopment: Key Features

(1) Mixed Density Housing (Low, Medium, High)



LIKE 20

DISLIKE 4

(2) Mixed-Use with Commercial



LIKE 21

DISLIKE 3

(3) Accessory Dwelling Unit (ADU) Infill



LIKE 18

DISLIKE 7

(4) Highway Commercial



LIKE 23

DISLIKE 1

CAL POLY

Redevelopment: Key Features

(5) Improved Sidewalks & Bicycle Connections



LIKE 22

DISLIKE 0

(6) Expanded Kern Transit within City



LIKE 22

DISLIKE 1

CAL POLY

Redevelopment: Outcomes

(7) Infill Development for Housing



LIKE 20

DISLIKE 4

(8) Increased Density



LIKE 20

DISLIKE 3

(9) Downtown Redevelopment



LIKE 20

DISLIKE 1

(10) Additional ADUs



LIKE 16

DISLIKE 6

CAL POLY

Redevelopment: Outcomes

(11) Improved Connectivity



LIKE 18

DISLIKE 1

(12) Expanded Bus Connections



LIKE 18

DISLIKE 2

CAL POLY

Smart Growth: Key Feature

(1) Downtown Infill



LIKE 27

DISLIKE 2

(2) Westside Residential Expansion



LIKE 27

DISLIKE 3

(3) Development Along Highway 99



LIKE 29

DISLIKE 0

(4) City Gateways with Signs, Landscaping, and Iconic Features



LIKE 25

DISLIKE 4

CAL POLY

Smart Growth: Key Features

(5) Walkable Corridors with Widened Sidewalk, Benches, and Landscaping



LIKE 29

DISLIKE 0

(6) Separated Bike Lanes



LIKE 24

DISLIKE 5

(7) Extended Pedestrian & Bicyclist Barriers on Highway Crossings



LIKE 26

DISLIKE 3

(8) Inner City Bus Service



LIKE 23

DISLIKE 5

(9) Additional Bus Stops for Kern Transit



LIKE 26

DISLIKE 2

CAL POLY

Smart Growth: Outcomes

(10) Increased Housing Density



LIKE 19

DISLIKE 8

(11) Increased Job Opportunities Along HWY 99



LIKE 27

DISLIKE 0

(12) Vibrant Downtown



LIKE 26

DISLIKE 2

(13) Mixed-Use in Downtown



LIKE 19

DISLIKE 8

CAL POLY

Smart Growth: Outcomes

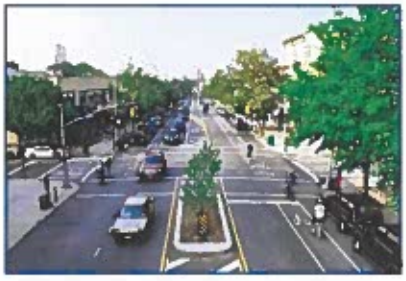
(14) Identified Gateways



LIKE 21

DISLIKE 6

(15) Safe Streets for All Road Users



LIKE 27

DISLIKE 1

20.4 Appendix 4 – Fourth Community Meeting Feedback

Citywide Features

(1) Concentrate Development to the West away from Floodable Areas
    a. Like 14 Dislike 0
(2) Preserve Open Space & Agricultural Land
    a. Like 12 Dislike 2
(3) City Gateways with Signs, Landscaping, and Iconic Features
    a. Like 14 Dislike 0
(4) Prioritize Infill Development for Housing
    a. Like 13 Dislike 1
(5) Redevelop Downtown
    a. Like 13 Dislike 1
(6) Vibrant Downtown
    a. Like 13 Dislike 1
(7) Mixed-Use in Downtown
    a. Like 14 Dislike 0
(8) Increased Job Opportunities along Highway 99
    a. Like 14 Dislike 0

Land Use/Key Growth Areas

(1) Revitalized Downtown: Infill Vacant & Underutilized Space with Mixed-Use
    a. Like 13 Dislike 0
(2) West Expansion: Clustered Low, Medium, & High-Density Housing
    a. Like 12 Dislike 0
(3) Whisler Road Expansion: Mixed-Density Residential with Connection to Commercial
    a. Like 12 Dislike 1
(4) Southern Commercial Corridor: Widened Sidewalks, Crosswalks, & Commercial
    a. Like 13 Dislike 0
(5) Famoso Industrial & Commercial Center: Creation of Light and Heavy Industrial & Highway Commercial Centers
    a. Like 12 Dislike 1
(6) Kern Neighborhood Commercial: Retail Center for Eastern Neighborhood
    a. Like 13 Dislike 0

Circulation Features

(1) Inner City Bus Services
    a. Like 12 Dislike 0
(2) New Bus Stops for Kern Transit at Major Centers along Highway 99
    a. Like 12 Dislike 0
(3) Expanded Sidewalks along Major Pedestrian Corridors

a. Like 12 Dislike 0

(4) Marked Bike Lanes along Major Arterials for Complete Streets

a. Like 12 Dislike 0

(5) Improved Pedestrian and Bike Corridor Connecting West

a. Like 12 Dislike 0

(6) Extended Pedestrian & Bicyclist Barriers for Safety on Highway 99 Crossings

a. Like 11 Dislike 1

(7) Safe Streets for All Road Users

a. Like 12 Dislike 0

20.5 Appendix 5 – McFarland 2040 Projections and Targets with Space Requirements

	Baseline	Alternative-Specific Targets		
	Business as Usual	**Moderate**	**Aggressive**	**Preferred**
Population				
2017 Population	13,930	13,930	13,930	13,930
2040 Population Projection	23,690	27,855	33,220	33,220
2017-2040 Projected Population Growth	9,760	13,925	19,290	19,290
Housing				
2017 Housing Units	3,080	3,080	3,080	3,080
2040 Housing Need Projection	7,580	8,910	10,630	10,630
2017-2040 Projected Housing Growth	***4,500***	***5,830***	***7,550***	7,550
Jobs				
2017 Jobs	6,745	6,745	6,745	6,745
2040 Jobs Projection	11,835	14,175	17,195	17,195
2017-2040 Projected Job Growth	***5,090***	***7,430***	***10,450***	10,450
Residential Acreage				
2020 Residential Acreage (LU Inventory)	480	480	480	480
2020 Single Family Acreage (LU Inventory)	455	455	455	455
2020 Multi-Family Acreage (LU Inventory)	25	25	25	25
2040 Residential Acreage (need)	1,290	1,140	1,330	1,330
2020-2040 Residential Acreage (need)	***810***	***660***	***850***	850
Commercial Acreage				
2020 Commercial Acreage (LU Inventory)	380	380	380	380
2040 Commercial Acreage (need)	700	840	1,030	1,030
2020-2040 Commercial Acreage (need)	***320***	***460***	***650***	650
Total Acreage				
2040 Residential & Commercial Acreage (need)	1,990	1,980	2,360	2,360
2020-2040 Residential & Commercial Acreage (need)	1,130	1,120	1,500	1,500
Acreage with Reserves				
2020-2040 Residential & Commercial + 30% Reserves	1,470	1,460	1,950	1,950
2020-2040 Residential & Commercial + 50% Reserves	1,700	1,680	2,250	2,250

Appendix H – Southern San Joaquin Municipal Utility District Area Management Plan

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Southern San Joaquin Municipal Utility District Management Area Plan

Kern County, CA

Submitted to:
Southern San Joaquin Municipal
11281 Garzoli Ave.
Delano, CA 93215

Submitted by:
GEI Consultants, Inc.
5001 California Ave., Suite 120
Bakersfield, CA 93309
661.327.7601

August 2019

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List of Acronyms

AF	Acre-feet
AFY	Acre-feet per Year
AWMP	Agricultural Water Management Plan
BMP	Best Management Practices
BVWSD	Buena Vista Water Storage District
CASGEM	California Statewide Groundwater Elevation Monitoring Program
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGPS	Continuous Global Positioning System
CGS	California Geological Survey
CUP	Conditional Use Permit
CVHM	Central Valley Hydrologic Model
CVP	Central Valley Project
CWD	Cawelo Water District
DAC	Disadvantaged Communities
DBCP	Dibromochloropropane
DEID	Delano-Earlimart Irrigation District
DMS	Data Management System
DTSC	Department of Toxic Substance Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
ESA	European Space Agency
ET	evapotranspiration
FKC	Friant-Kern Canal
ft msl	Feet Mean Sea Level
GAMA	Groundwater Ambient Monitoring and Assessment Program
GDE	Groundwater Dependent Ecosystem
GEI	GEI Consultants, Inc.

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GIS ..... Geographic Information System

GMP ..... Groundwater Management Plan

GPS ..... Global Positioning System

GSA ..... Groundwater Sustainability Agency

GSP ..... Groundwater Sustainability Plan

HCM ..... hydrogeologic conceptual model

HZ ..... Hydrogeologic Zone

ILRP ..... Irrigated Lands Regulartory Program

InSAR ..... Interferometric Synthetic Aperture Radar

IRWM ..... Integrated Regional Water Management

IRWMP ..... Poso Creek Integrated Water Management Plan

ITRC ..... Irrigation Training and Research Center

JPA ..... Joint Powers Agreement

JPL ..... Jet Propulsion Laboratory

KCPHSD ..... Kern County Public Health Services Department

KCWA ..... Kern County Water Authority

KFMC ..... Kern Fan Monitoring Committee

KGA ..... Kern Groundwater Authority

KNKWSD ..... North Kern Water Storage District

KRWCA ..... Kern River Watershed Coalition Authority

KTWD ..... Kern-Tulare Water District

LADWP ..... Los Angeles Department of Water and Power

MCL ..... Maximum Contaminant Level

mg/L ..... Milligram per Liter

MMU ..... minimum map unit

NAIP ..... National Agricultural Imagery Program

NASA ..... National Aeronautics and Space Administration

NCCAG ..... Natural Communities Commonly Associated with Groundwater

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NEPA ..... National Environmental Policy Act

NGS ..... National Geodetic Survey

NHD ..... National Hydrography Dataset

NPDES ..... National Pollution Discharge Elimination System

NRCS ..... National Resources Conservation Service

NTNC ..... Non-Transient Non-Community

NWI ..... National Wetland Inventory

PBO ..... Plate Boundary Observation

PCE ..... Tetrachloroethylene

PGA ..... Pacific Geotechnical Associates

Ppm ..... Parts per million

PWS ..... Public Water System

RWQCB ..... Regional Water Quality Control Board

SAGBI ..... Soil Agricultural Groundwater Banking Index

SCV ..... Survey of California Vegetation

SDWIS ..... State Drinking Water Information System

SGMA ..... Sustainable Groundwater Management Act

SJVAPCD ..... San Joaquin Valley Air Pollution Control District

SMC ..... Sustainable Management Criteria

SOPAC ..... Scripps Orbit and Permanent Array Center

SSJMUD ..... Southern San Joaquin Municipal Utility District

SSURGO ..... Soil Survey Geographical Database

Subbasin ..... Kern Subbasin

SWP ..... State Water Project

SWSD ..... Semitropic Water Storage

TAF ..... Thousand acre-feet

TCP 1,2,3-trichloropropane

TDS ..... Total Dissolved Solids

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TNC ..... Transient Non-Community

UAVSAR ..... Unmanned Aerial Vehicle Synthetic Aperture Radar

UC Davis ..... University of California, Davis

USBR ..... United States Bureau of Reclamation

USDA ..... United States Department of Agriculture

USDW ..... Underground Source of Drinking Water

USFWS ..... U.S. Fish and Wildlife Service

USGS ..... United State Geological Survey

UWMP ..... Urban Water Management Plan

VegCAMP ..... Vegetation Classification and Mapping Program

WWTP ..... Waste Water Treatment Plant

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Executive Summary

This management area plan was written to represent the efforts of Southern San Joaquin Municipal Utility District (SSJMUD) to comply with the California state regulated Sustainable Groundwater Management Act (SGMA) of 2014. According to SGMA, groundwater basins in California that have been classified as high or medium priority must correct current overdraft conditions in order to reset the balance of groundwater input/output as an effort to reach sustainability by the year 2040. This plan was written in conjunction with and in support of a basin-wide Groundwater Sustainability Plan (GSP) drafted on behalf of the Kern Groundwater Authority (KGA). The KGA represents 15 member agencies within the boundary of the Kern County Subbasin (Subbasin) which are joined together by the adoption of a Joint Powers Agreement (JPA). While the Districts will be coordinating with the KGA to comply with SGMA, it will write their own management area plans. This management area plan follows the California Code of Regulations and discusses background information of the District and its corresponding management area; current practices and existing plans; management structure and actions; and current groundwater conditions and future sustainability management practices required to comply with SGMA.

SSJMUD is located within the Tulare Lake Region of the Central Valley. Beneficial users serviced within the District boundaries consist of agricultural; municipal and domestic; and industrial. Groundwater is used in this region to support agricultural production and industrial practices that support the economic viability of local communities. This management area plan includes a detailed overview of the Districts' historical, current, and projected groundwater conditions, including groundwater storage, water quality, and land subsidence.

This plan provides the required elements of a GSP and identifies an initial path for sustainable management in the Districts' portions of the Subbasin. As documented in this management area plan, the goal for the District is to balance the average inflow and outflows of water in the District so that a negative change in groundwater storage does not occur; thus, preventing the lowering of average groundwater levels beyond 2040 through the actions of the District. This goal is expected to maintain groundwater levels as well as prevent water quality degradation and land subsidence. To reach the sustainability goal by 2040, the District will implement projects and management actions over time by increasing supply or reducing demand. Once fully implemented, project and management actions are expected to reduce the groundwater pumping for the District to avoid undesirable results

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1. Introduction

1.1 General Information

1.1.1 Purpose of Management Area Plan

To comply with the requirements of SGMA, SSJMUD has contracted with GEI Consultants, Inc. (GEI) for the preparation of this management area plan for inclusion in the KGA GSP. This management area plan serves to do the following:

- Define and describe the geographic and geologic conditions of the SSJMUD area in the Subbasin
- Identify and describe the sustainability goal for the Subbasin and the SSJMUD jurisdictional area
- Identify and describe the six undesirable results set forth in SGMA, as they pertain to the Subbasin and the SSJMUD jurisdictional area
- Identify and describe the specific minimum thresholds and measurable objectives required for SSJMUD to achieve the sustainability goal of the Subbasin
- Define and identify projects and management actions proposed by SSJMUD to achieve the sustainability goal

1.2 Agency Information

Agency's Name:	Southern San Joaquin Municipal Utility District
Agency's Address:	11281 Garzoli Ave, Delano CA 93215
Agency's Phone Number:	(661) 725-0610
Agency's Website:	http://www.ssjmud.org/
Contact Person:	Roland Gross
Contact Person's Title:	General Manager, SSJMUD

SSJMUD was formed in 1935, under the Municipal Utility District Act of the Public Utility Code of California, with the purpose to obtain and provide a supply of water for lands located within the boundaries of the District. Although the District includes the cities of Delano and McFarland, the District only provides agriculture water services. SSJMUD first entered into a 9e Water Services Contract with United States Bureau of Reclamation (USBR) in 1945. This contract was renewed in 2001 and currently expires in 2026, although further extensions are anticipated. In 2011, the District negotiated a 9d Repayment Contract with the USBR, which has the benefit of being a perpetual contract for the existing amounts of contracted water supply, thus securing the District's water supply from the Central Valley Project (CVP).

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1.2.1 Legal Authority of Agencies

On May 27, 2014 the agencies and districts listed in Table 1-1 below and the County of Kern entered into a JPA agreement to form the KGA. To facilitate the implementation of the KGA GSP, the Agency's jurisdictional area is divided into management areas formed by the portion of the Subbasin that underlies the boundaries of each general member agency. Under this JPA agreement, the KGA was granted the authority to serve as the Groundwater Sustainability Agency (GSA) for all of its member agencies. This JPA Agreement was amended and restated on March 22, 2017. The amended and restated JPA agreement is included in Appendix A of the KGA GSP.

Table 1-1: Kern Groundwater Authority Member Agencies

Arvin Community Services District	Rosedale-Rio Bravo Water Storage District
Arvin-Edison Water Storage District	Semitropic Water Storage District
Cawelo Water District	Shafter-Wasco Irrigation District
City of Shafter	Southern San Joaquin Municipal Utility District
Kern County Water Agency – Pioneer Project	Tejon-Castaic Water District
Kern-Tulare Water District	West Kern Water District
Kern Water Bank Authority	Westside District Water Authority
North Kern Water Storage District	Wheeler Ridge-Maricopa Water Storage District

SSJMUD entered into a cooperative agreement with the City of Delano and the City of McFarland for the purposes of coordinating SGMA compliance and the development and implementation of a management area plan under the KGA. Per the terms of the KGA's JPA agreement, the Districts maintain authority over their own internal matters, including but not limited to, their respective surface water supplies, their respective groundwater supplies, facilities, operations, water management, and water supply matters.

1.3 Management Area Plan Implementation Costs

SSJMUD, on behalf of its customers and landowners, will incur costs to implement its management area plan and maintain the plan via five-year updates, both on their own and as members of the KGA. These costs and sources of funding are described below.

1.3.1 Costs Generated by Management Area Plan Implementation

Table 1-2 presents a description and an estimate of the costs associated with the implementation of the SSJMUD management area plan and measures associated with SGMA compliance.

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Table 1-2: Estimated Costs for Management Area Plan Implementation

Item	Description	Estimated Cost
Monitoring	Improvement of in-district monitoring network for SGMA compliance. Coordination of groundwater level, groundwater quality, and land subsidence monitoring activities for annual reporting and Five-Year Updates	$400,000 for the first 5 years
Projects	Implementation of projects that have been identified in this plan. This estimate is for the duration of the 20-year SGMA implementation period.	$70,000,000
Management	Administration of management actions and SGMA implementation measures.	$65,000 per year
Annual Report	Reporting of data collected in-district for inclusion in the Subbasin's Annual Report to DWR.	$25,000 per year
5-Year Management Area Plan Update and Report	Development of plan updates, based upon the ongoing evaluation of groundwater conditions, changes to monitoring network, and developments of new projects and management actions for SGMA implementation.	$500,000 every 5 years

These costs are an estimate based on known requirements for SGMA compliance and on projects that have been identified at this time. They are subject to change as SGMA is implemented both at the district-level and throughout the Subbasin.

1.3.2 Management Area Plan Implementation Funding

Under the JPA Agreement, the KGA may impose reasonable fees, charges, assessments, and other levies to implement its management area plan. However, the KGA shall have no authority to impose any such fees, charges, assessments, or other levies on any of its members or within a management area without the express consent and approval of the affected member(s). SSJMUD retains its own authority, within its own jurisdiction, to impose fees, changes, assessments, or other levies as defined in their respective Rules and Regulations, pursuant to the Water Code.

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1.4 Description of Plan Area

The KGA's jurisdictional area is entirely within the Subbasin, as defined in the California Department of Water Resources (DWR) Bulletin 118, South of the Tulare Lake hydrologic region of the San Joaquin Valley groundwater basin. The Subbasin is bound by the Kern County – Tulare County line to the north, the Sierra Nevada Mountains to the east, the Tehachapi Mountains to the south, and the Temblor range to the west. The Kern River flows from the Sierra Nevada Mountains, to the southwest, thence north, to its terminus at the Tulare Lakebed.

SSJMUD is bound by the northern Subbasin boundary between the Tule Subbasin and Kern County Subbasin (coincidental with the Kern-Tulare County line), and Semitropic Water Storage District (SWSD) to the west, North Kern Water Storage District (NKWSD) and the Cawelo Water District (CWD) to the south, and Kern-Tulare Water District (KTWD) and undistricted lands within Kern County to the east. California State Highway 99 roughly bisects the areas covered by SSJMUD's jurisdictional area. The Friant-Kern Canal (FKC, CVP) flows through SSJMUD, from Millerton Dam on the San Joaquin River, running south and terminating at the Kern River, east of Highway 99.

1.4.1 Geographic Areas Covered

As shown in Figure 1-1, this management area plan covers SSJMUD's jurisdictional area and the cities of Delano and McFarland. This area represents approximately 3% of the area within the Subbasin. The boundaries are coincidental with the boundaries of the Subbasin, SWSD, NKWSD, CWD, KTWD, and undistricted lands in the unincorporated portion of Kern County. The district is located entirely within the Subbasin. There are no adjudicated areas within SSJMUD.

The incorporated cities of Delano and McFarland lay almost entirely within SSJMUD's jurisdictional area, with the exception of the land annexed into the City of McFarland for its wastewater treatment plant (which is located in the NKWSD's jurisdictional area), as shown in Figure 1-1. There are also several *de minimis* domestic water users and multi-parcel water systems located within the SSJMUD jurisdictional area, which will be covered by this management area plan.

1.4.2 Plan Area Setting

The total service area of SSJMUD is approximately 66,000 acres, with an irrigated acreage of approximately 51,000 acres. While the total irrigated acreage remains consistent, the actual parcels receiving water from each of the districts varies from year to year, based on decisions made by the landowners for which properties are to be irrigated and which crops are being grown. Land use mainly consists of vineyards, deciduous fruits and nut crops, and citrus, as shown in Figure 1-2. Field crops, pasture, and grain

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and hay crops are located mainly in the western portion of the district, west of Highway 99. The majority of land within the limits of the cities of Delano and McFarland is classified as urban, with some land in deciduous crops or idle.

Figure 1-3 shows the areas of SSJMUD that currently receive surface water and the areas that are dependent on groundwater only. The cities of Delano and McFarland are groundwater dependent, while the service area covered by SSJMUD has access to both groundwater and surface water supplies.

Based on the data available from DWR, the jurisdictional area of SSJMUD has domestic water supply well density ranging from 1 to 22 wells per sq. mi., as shown in Figure 1-4. The area outside the City of Delano has a domestic well density of 15 to 22 wells per sq. mi.

The density of water production wells for agricultural use generally range from 0 to 6 wells per sq. mi., as shown in Figure 1-5. Most of the areas with higher well densities are in the western portion of the District. The density of water production wells for municipal use is generally 0 to 2 sq. mi. for areas around the cities of Delano and McFarland as shown in Figure 1-6.

There are scattered multi-parcel and state small water systems throughout the western portion of the District in proximity to the cities of Delano and McFarland. As shown in Figure 1-3, these include the two incorporated cities, the unincorporated communities, and the state small systems owned and operated by Cal Water. The *de minimis* domestic water users and multi-parcel water systems located within the SSJMUD's jurisdictional area are also groundwater dependent.

1.4.3 Existing Plans in Plan Area

There are existing groundwater management plans (GMP) within the Plan Area: the 2007 Poso Creek Integrated Water Management Plan (IRWMP) and the SSJMUD 2015 Agricultural Water Management Plan (AWMP), which is discussed in further detail in the basin setting section (Section 2) of this management area plan. A copy of the SSJMUD AWMP is included in Appendix B.

Adopted in July 2007, the Poso Creek IRWMP was created to address short and long-term water supply challenges at a regional scale. The IRWMP was developed by the Poso Creek Regional Management group comprised of seven agricultural districts, of which the SWSD was the lead agency. Groundwater goals within the IRWMP included:

- Maintain groundwater levels at economically viable pumping lifts
- Protect the quality of groundwater and enhance where practical
- Enhance monitoring activities to meet groundwater levels and water quality goals

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Of the highest priority to the IRWMP was facilitating proper groundwater management. In addition to the requirements of the Districts' water management plans and the Poso Creek IRWMP, there are other federal, state, local, and regional programs that monitor groundwater levels, groundwater and surface water quality, surface water inflow, weather and precipitation, and land subsidence. A description of these existing monitoring programs is provided in the basin setting and monitoring network sections of this management area plan.

In addition to these regional and district plans, the City of Delano has adopted an Urban Water Management Plan (UWMP); the City of McFarland is exempt from the requirement for an UWMP because its annual groundwater usage is less than 3,000 acre-feet per year (AFY). In addition to the required GMP, both Delano and McFarland have adopted General Plans. For the areas not within the limits of the incorporated cities, the Kern County General Plan applies. The General Plans for the cities and the General Plan for the County each have land use elements which address water usage. These elements are to be considered in this management area plans.

1.4.3.1 City of Delano General Plan

The City of Delano's General Plan (adopted in December 2005) includes an open space and conservation element. This element of the General Plan describes that groundwater is the primary source of domestic water supply for the city, as well as the sources of groundwater recharge. One of the objectives stated in the General Plan is "to protect natural resources including groundwater, soils, and air quality, to meet the needs of present and future generations."

The policies and standards adopted in the General Plan which deal specifically with groundwater are:

> **Policy #1:** Protect areas of natural groundwater recharge from land uses and disposal methods, which would degrade groundwater quality. Promote activities, which combine stormwater control, and water recharges.
>
> **Policy #2:** Expand programs that enhance groundwater recharge in order to maintain the groundwater supply, including the installation of detention ponds in new growth areas.

1.4.3.2 City of McFarland General Plan

The City of McFarland's General Plan (adopted in September 1991, updated in December 2015) includes an open space, conservation, and recreation element, which contains a description of the sources of the city's water supply. The current version of the open space, conservation, and recreation element does not address groundwater objectives, nor does it currently provide the policies or measures to meet those objectives.

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1.4.3.3 Kern County General Plan

The Kern County General Plan contains provisions within the Land Use, Open Space and Conservation Element that relate specifically to groundwater resource management. These provisions, found in the Resource Policies of the Land Use, Open Space, and Conservation Element, are:

> **Policy #10:** To encourage effective groundwater resource management for the long-term economic benefit of the County the following shall be considered:
>
> a. Promote groundwater recharge activities in various zone districts
>
> b. Support for the development of Urban Water Management Plans and promote Department of Water Resources grant funding for all water providers
>
> c. Support the development of GMPs
>
> d. Support the development of future sources of additional surface water and groundwater, including conjunctive use, recycled water, conservation, additional storage of surface water and groundwater and desalination

Under the General Provisions of the General Plan, there is a section which deals specifically with surface and groundwater. This section includes a policy statement which states that the County will "encourage the development of the County's groundwater supply to sustain and ensure water quality and quantity for existing users, planned growth, and maintenance of the natural environment" and that "new high consumptive water uses, such as lakes and golf courses, should require evidence of additional verified sources of water other than local groundwater. Other sources may include recycled stormwater or wastewater."

The implementation measures listed in the General Provisions which are directly related to groundwater are:

> **Measure U:** The Kern County Environmental Health Services Department will develop guidelines for the protection of groundwater quality which will include comprehensive well construction standards and the promotion of groundwater protection for identified degraded watersheds.
>
> **Measure X:** Encourage effective groundwater resource management for the long-term benefit of the County through the following:
>
> i. Promote groundwater recharge activities in various zone districts
>
> ii. Support for the development of Urban Water Management Plans and promote Department of Water Resources grant funding for all water providers
>
> iii. Support the development of GMPs

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iv. Support the development of future sources of additional surface water and groundwater, including conjunctive use, recycled water, conservation, additional storage of surface water and groundwater and desalination

Measure Z: General Plan Amendments subject to environmental review and not otherwise subject to California Water Code Section 10910 shall demonstrate through a water supply assessment that a long-term water supply for a 20-year timeframe is available. The water assessment shall include, but not limited to, the following:

i. Source and quantity of historical water use on the site.

ii. Estimated water consumption of the proposed development.

iii. Estimated storage, if any, in meeting the projected need.

iv. Recommendations for additional sources of water to address demand shortage. Such measures may include, but not limited to, development of future sources of additional surface water and groundwater, including water transfers, conjunctive use, recycled water, conservation, and additional storage of surface water, groundwater, and desalination.

Written acknowledgement that water will be provided by a community or public water system with an adopted Urban Water Management Plan shall constitute compliance with this requirement.

1.4.4 Plan Elements from CWC Section 10727.4

A. Control of Saline Water Intrusion

Seawater intrusion is not considered an issue in the Subbasin. The coastal range provides a barrier, preventing seawater from coming into contact with groundwater flow in the Subbasin.

B. Wellhead Protection Areas and Recharge Areas

Permits are issued by the Kern County Public Health Services Department (KCPHSD) Water Well Program to construct, reconstruct, and destroy water wells. The Districts assist their landowners through this process to comply with the wellhead protection area program. This program was implemented through the Safe Drinking Water Act and aims to prevent contamination in public water systems. The Districts also manage recharge areas throughout their jurisdictional boundaries and with adjacent water district recharge programs such as for the Kern Water Bank and Pioneer Project.

C. Migration of Contaminated Groundwater

There is one identified contamination plume of concern within SSJMUD's boundaries. Refer to Section 2.3.4 for further details.

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D. Well Abandonment and Well Destruction Program

The KCPHSD issues permits to destroy water wells. The process consists of completing a water well permit through the county. All state and county regulations must be followed during the destruction process. According to the Kern County Ordinance Code 14.08, any wells that are abandoned or wells with inadequate water supply must be destroyed. Furthermore, any abandoned wells on the site of an active new well construction permit must be destroyed prior to construction.

E. Replenishment of Groundwater Extractions

To manage the groundwater basin within its boundaries, the Districts actively participate in conjunctive use or underground storage programs (see Section 2.7.2). In addition to these efforts, the Districts will work to implement additional projects to bring more water into the basin to maintain sustainable groundwater conditions.

F. Conjunctive Use or Underground Storage

The Districts actively participate in conjunctive use and underground storage programs to manage the groundwater basin within its boundaries. These projects aim to reduce demand on local groundwater resources. Projects include land fallowing, expansion of recharge facilities, and water banking on behalf of the Districts (see Section 2.7.2).

G. Well Construction Policies

The KCPHSD, Environmental Health Division, issues permit to construct, deepen, or replace water wells. The permitting process consists of a county water well permit and the SGMA implemented Overdraft Supplemental Well Application accompanied by detailed site maps.

H. Groundwater contamination cleanup, groundwater recharge, in-lieu use, diversions to storage, conservation, water recycling, conveyance, and extraction projects

Regarding groundwater contamination cleanup, there are five contamination plumes in Pond and Delano. Potential contaminants at the sites include gasoline, tetrachloroethylene (PCE), pesticides, fumigants, and herbicides. Since there are no nearby impacted wells or municipal wells (within 1,500 feet of the sites), these sites are not impacting groundwater quality. SSJMUD is not taking an active role in the remediation effort that is managed by the Department of Toxic Substance Control (DTSC).

Through its water management practices, the District is constantly pursuing water conservation. Efficient water management practices are described in each District's GMP. For information regarding in-lieu use, water recycling, and extraction projects, see Section 2.7.2.

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I. Efficient Water Management Practices

The existing GMPs the Districts currently follow are their own GMP's as well as the Poso Creek IRWMP. These plans were implemented to approach short and long-term water supply challenges throughout the region. These challenges were combatted with increased recharge capacities, improved conveyance, and coordinated operation of the water management programs.

J. Relationships with State and Federal Regulatory Agencies

The District coordinates with other state and federal agencies as needed to manage its water supplies; construct and implement water management projects; monitor and report local water conditions; and coordinate and provide input to local, regional and state water policy matters.

K. Land use plans and efforts to coordinate with land use planning agencies to assess activities that potentially create risks to groundwater quality or quantity

Documents pertaining to land use plans and coordination between planning agencies are included in Section 1.4.3 of this management area plan. The Districts will continue to coordinate with the KGA and other GSAs in the Subbasin as the SGMA implementation process proceeds.

L. Impacts on Groundwater Dependent Ecosystems

The presence of GDE's has not been identified. Section 2.3.7 of this management area plan provides an overview of the available information regarding GDEs in the Districts.

1.5 Notice and Communication

Per Section 354.10 of the GSP emergency regulations, the following sections discuss the notice and communication processes conducted by the Districts with other agencies and interested parties. A list public outreach meetings and workshops for the Districts' beneficial users and other interested parties are provided along with a brief overview of their respective purpose.

1.5.1 Participating Agencies

The following agencies were engaged in the public outreach activities related to the development of this management area plan:

- City of Delano
- City of McFarland
- Kern Groundwater Authority

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1.5.2 Beneficial Uses and Users

As required by Section 354.10(a) of the GSP emergency regulations, beneficial use and users in the Districts' portions of the Subbasin have been identified. The beneficial uses of groundwater in the management area plan, consistent with the uses identified in DWR Bulletin 118, are:

- Agricultural;
- Municipal and Domestic;
- And Industrial.

Users of groundwater have been identified as landowners, agricultural operations (including farms, dairies, and food processors), businesses, rural residents, and urban residents of incorporated communities and unincorporated communities. These beneficial users of groundwater have been identified as stakeholders for public outreach activities in the plan area.

1.5.3 Public Meetings

Throughout the development of this management area plan, SSJMUD has conducted a series of public meetings to educate and engage the beneficial users within the District boundaries regarding the planning and implementation of SGMA. The Districts have also encouraged its beneficial users to participate in public meetings held by the KGA. A list of all meetings conducted by the Districts are provided in Table 1-3.

Following the enactment of SGMA in 2014, the Districts began conducting public outreach meetings and workshops to educate its beneficial users on SGMA implementation and to open the lines of communication for the development of this management area plan. Active participation was encouraged for all beneficial users in order to accurately reflect the diverse social, cultural, and economic elements of the beneficial users represented in this management area plan.

In addition to their regularly scheduled board meetings, which are publicly noticed on the District website (see Section 1.2), SSJMUD facilitated a publicly-noticed stakeholder outreach meeting on April 29, 2019 to discuss the Districts' joint efforts to develop a management area plan under the KGA. This meeting was then followed-up with smaller, landowner-focused meetings on May 2, 2019. SSJMUD also held publicly-noticed quarterly landowner meetings.

The sign-in sheets, agendas, and minutes from these meetings are included in Appendix C. Feedback received was taken under consideration and used in the development of this management area plan. The GSA Board, along with the General Manager and Consultant, considered

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feedback to formulate a plan that accurately captures all beneficial use/users and their interests with a goal to achieve groundwater sustainability by 2040.

Table 1-3: SSJMUD Public Meetings and Workshops

Date	Meeting	Purpose
Monthly	KGA Stakeholder Coordination Meetings	Review development of SGMA management area plan with KGA member agencies and coordinate on efforts for development.
Monthly	Board Meetings	Review development of SGMA management area plan.
August 21, 2018	Management Area Plan Development Meeting	Meeting with growers in the district and representatives from Wonderful Orchards, Westchester Group, and Yurosek Farms to discuss plan progress and development of Sustainable Management Criteria and Projects and Management Actions to be included in the management area plan.
February 21, 2019	Management Area Plan Development Meeting	Overview of SGMA plan development and coordination with the cities of Delano and McFarland and the district managers.
April 29, 2019	Stakeholder Outreach Meeting	Review presentation of SGMA; participants; and overview of Plan development and sustainable management criteria.
May 2, 2019	Stakeholder Outreach Meeting	Review and follow up to discuss April 29 meeting materials.
May 14, 2019	KGA Open House	Presentation of member agencies' GSPs/plans development with representatives from state agencies in attendance.
June 12, 2019	KGA Open House	Discussion of Plan administrative draft with representatives from the cities of Delano and McFarland.

1.5.4 Comments Received

To be developed after the public comment period ends.

1.5.5 Management Area Plan Organization

This management area plan includes the following information, pertinent to SSJMUD's jurisdictional area:

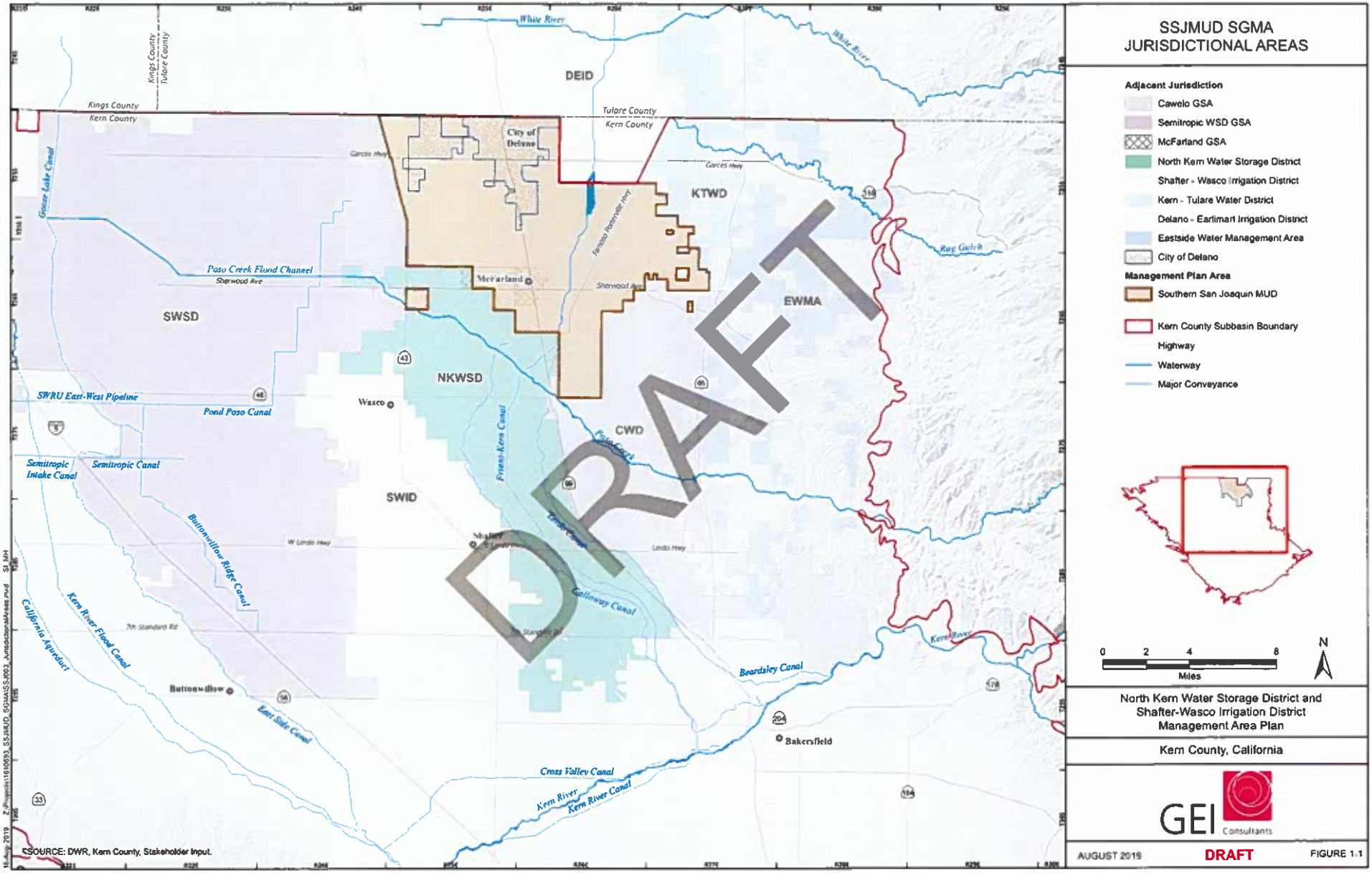
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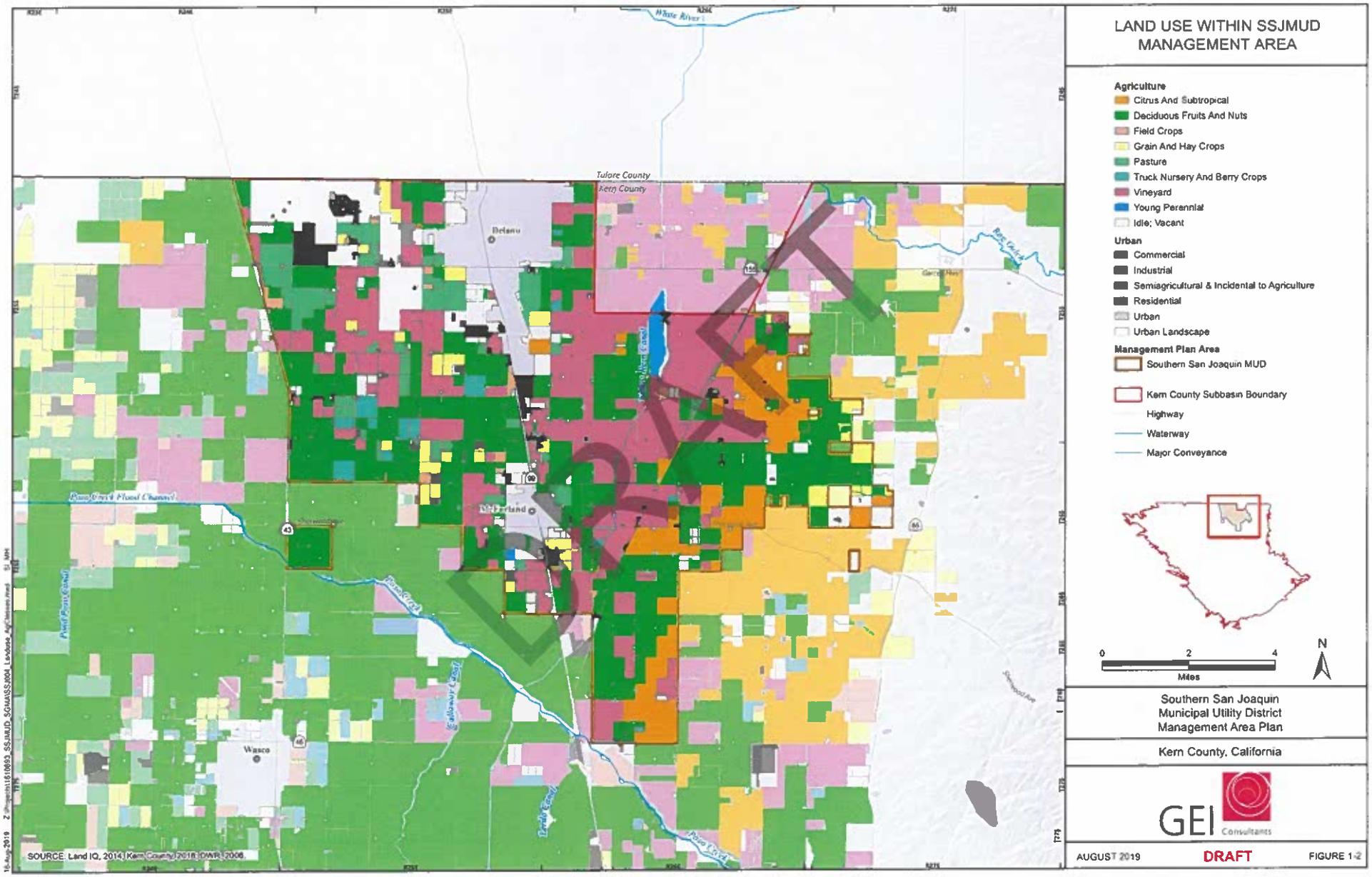
- Basin Setting elements, pertaining to the groundwater conditions and sustainability indicators of the portions of the Subbasin located within the jurisdictional area of SSJMUD (Section 2),
- The sustainability goal and undesirable results, adopted at the Subbasin, and applied to the management areas within SSJMUD, along with the sustainable management criteria for all sustainability indicators within SSJMUD that have been identified as applicable to the Subbasin (Section 3),
- The identification of existing monitoring networks for the evaluation of sustainable management criteria and monitoring of sustainability indicators identified in the management area plan (Section 4), and
- The identification of projects and management actions proposed by the District to reach the sustainability goals identified in this management area plan (Section 5).

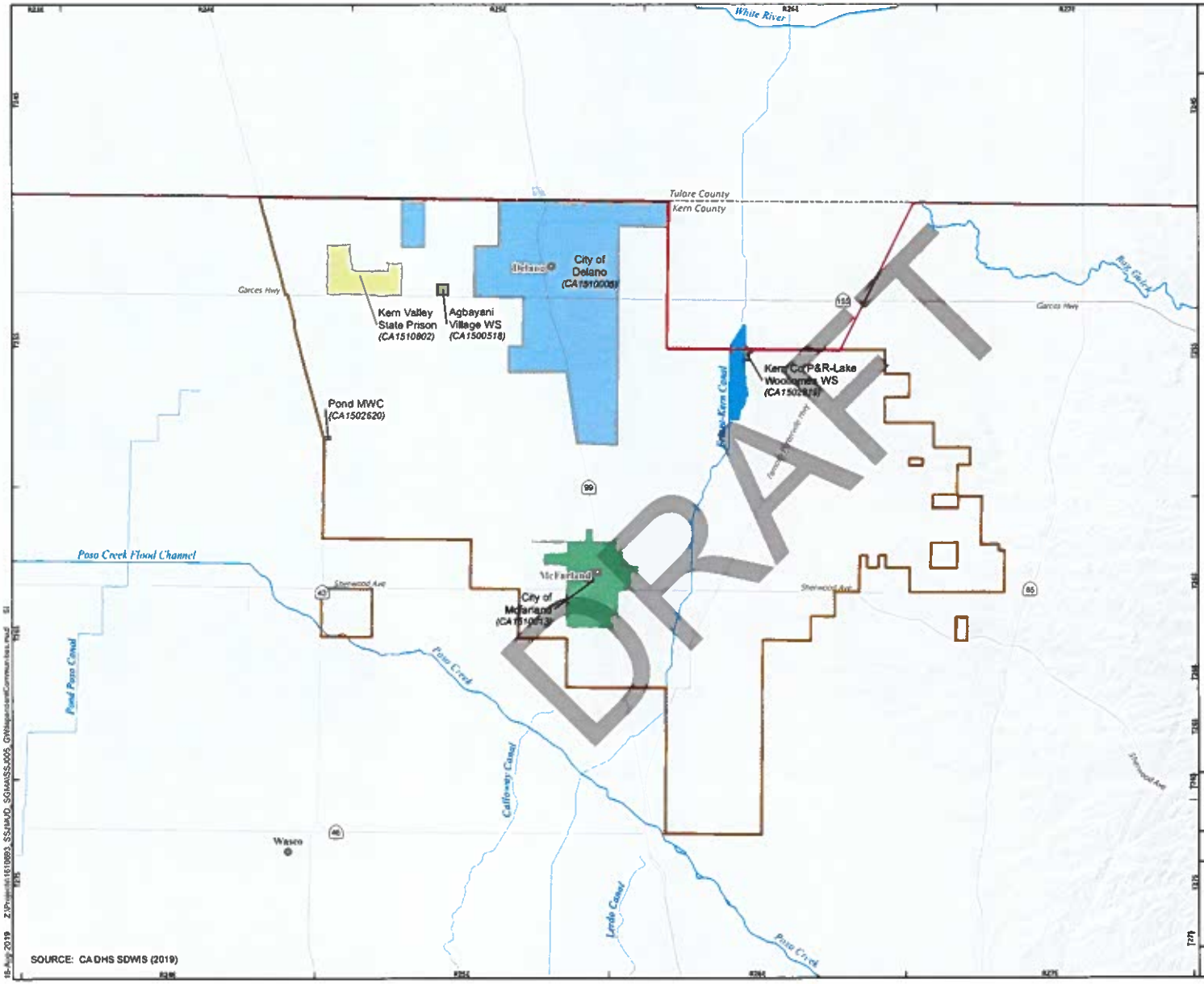
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SSJMUD SGMA
JURISDICTIONAL AREAS
Adjacent Jurisdiction
Cawelo GSA
Semitropic WSD GSA
McFarland GSA
North Kern Water Storage District
Shafter - Wasco Irrigation District
Kern - Tulare Water District
Delano - Earlimart Irrigation District
Eastside Water Management Area
City of Delano
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
DEID
KTWD
EWMA
SWSD
NKWSD
CWD
SWID
City of Delano
McFarland
Wasco
Shafter
Buttonwillow
Bakersfield
White River
Kings County
Tulare County
Kern County
Garces Hwy
Sherwood Ave
Lerdo Hwy
7th Standard Rd
Poso Creek Flood Channel
Pond Poso Canal
SWRU East-West Pipeline
Semitropic Intake Canal
Semitropic Canal
Buttonwillow Ridge Canal
California Aqueduct
Kern River Flood Canal
East Side Canal
Friant-Kern Canal
Lerdo Canal
Calloway Canal
Beardsley Canal
Kern River
Kern River Canal
Cross Valley Canal
Rag Gulch
Grasser Lake Canal
Famoso-Porterville Hwy
0 2 4 8
Miles
N
North Kern Water Storage District and
Shafter-Wasco Irrigation District
Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
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FIGURE 1-1
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SOURCE: DWR, Kern County, Stakeholder Input.


LAND USE WITHIN SSJMUD MANAGEMENT AREA
Agriculture
Citrus And Subtropical
Deciduous Fruits And Nuts
Field Crops
Grain And Hay Crops
Pasture
Truck Nursery And Berry Crops
Vineyard
Young Perennial
Idle; Vacant
Urban
Commercial
Industrial
Semiagricultural & Incidental to Agriculture
Residential
Urban
Urban Landscape
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 1-2
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Tulare County
Kern County
Delano
McFarland
Wasco
White River
Poso Creek
Poso Creek Flood Channel
Pond Poso Canal
Lerdo Canal
Shumway Ave
SOURCE: Land IQ, 2014; Kern County 2018; DWR, 2006.



GROUNDWATER DEPENDENT COMMUNITIES

Groundwater Dependent Communities

- Agbayani Village WS
- City of Delano
- City of Mcfarland
- Kern Co P&R-Lake Woollomes WS
- Kern Valley State Prison
- Pond MWC

Management Plan Area

- Southern San Joaquin MUD
- Kern County Subbasin Boundary
- Highway
- Waterway
- Major Conveyance



0 2 4 Miles

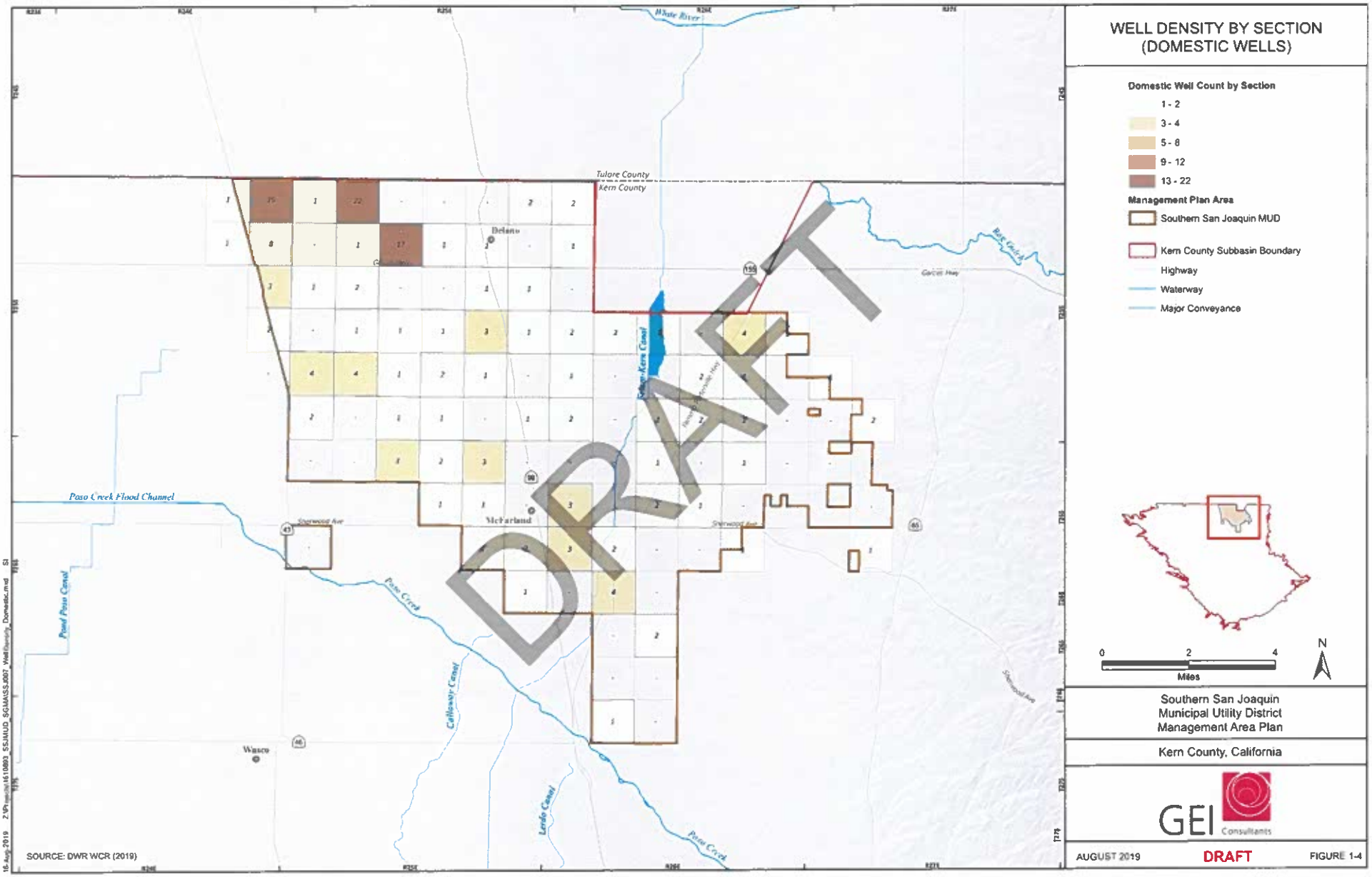
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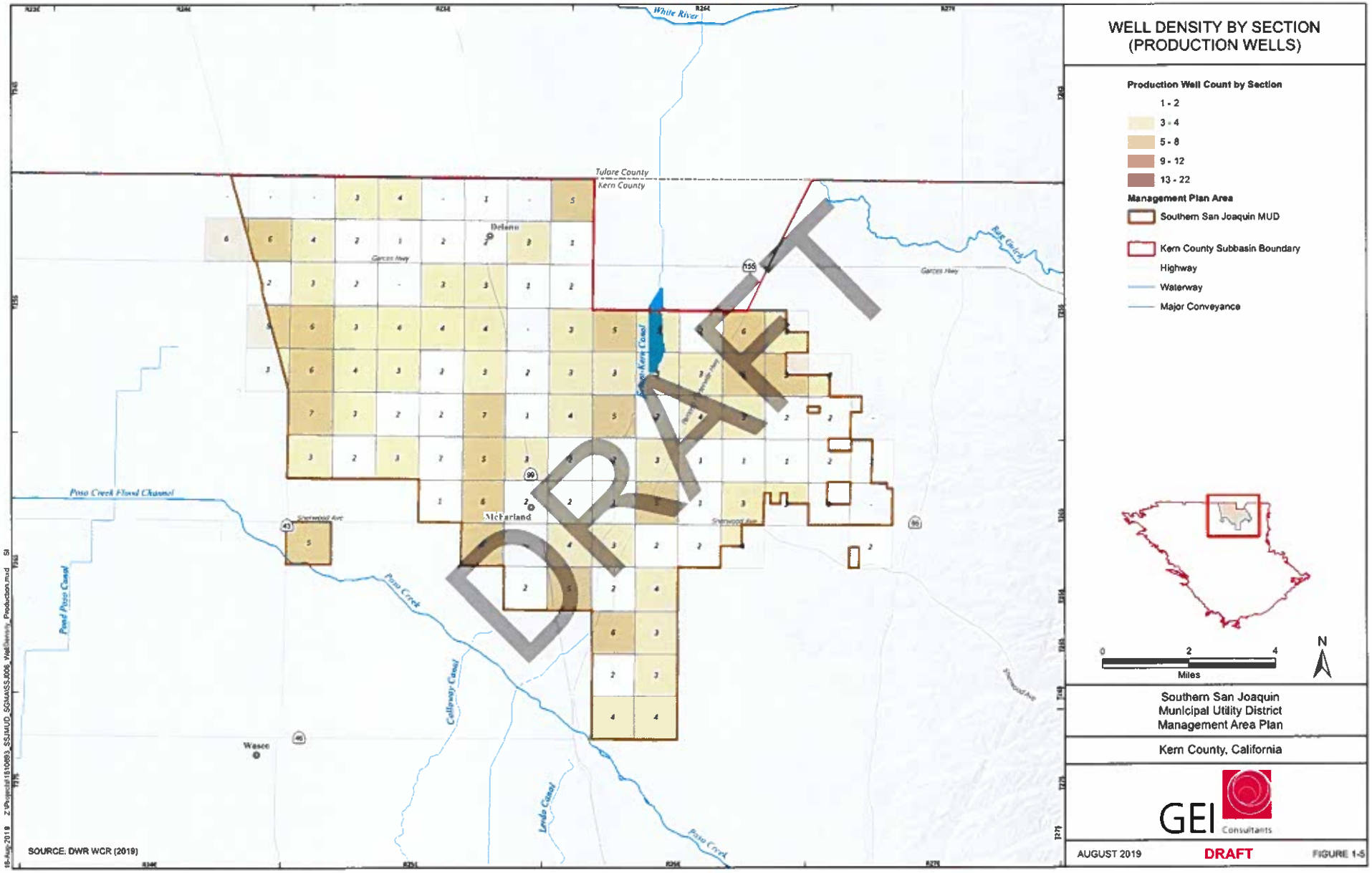
Southern San Joaquin Municipal Utility District Management Area Plan

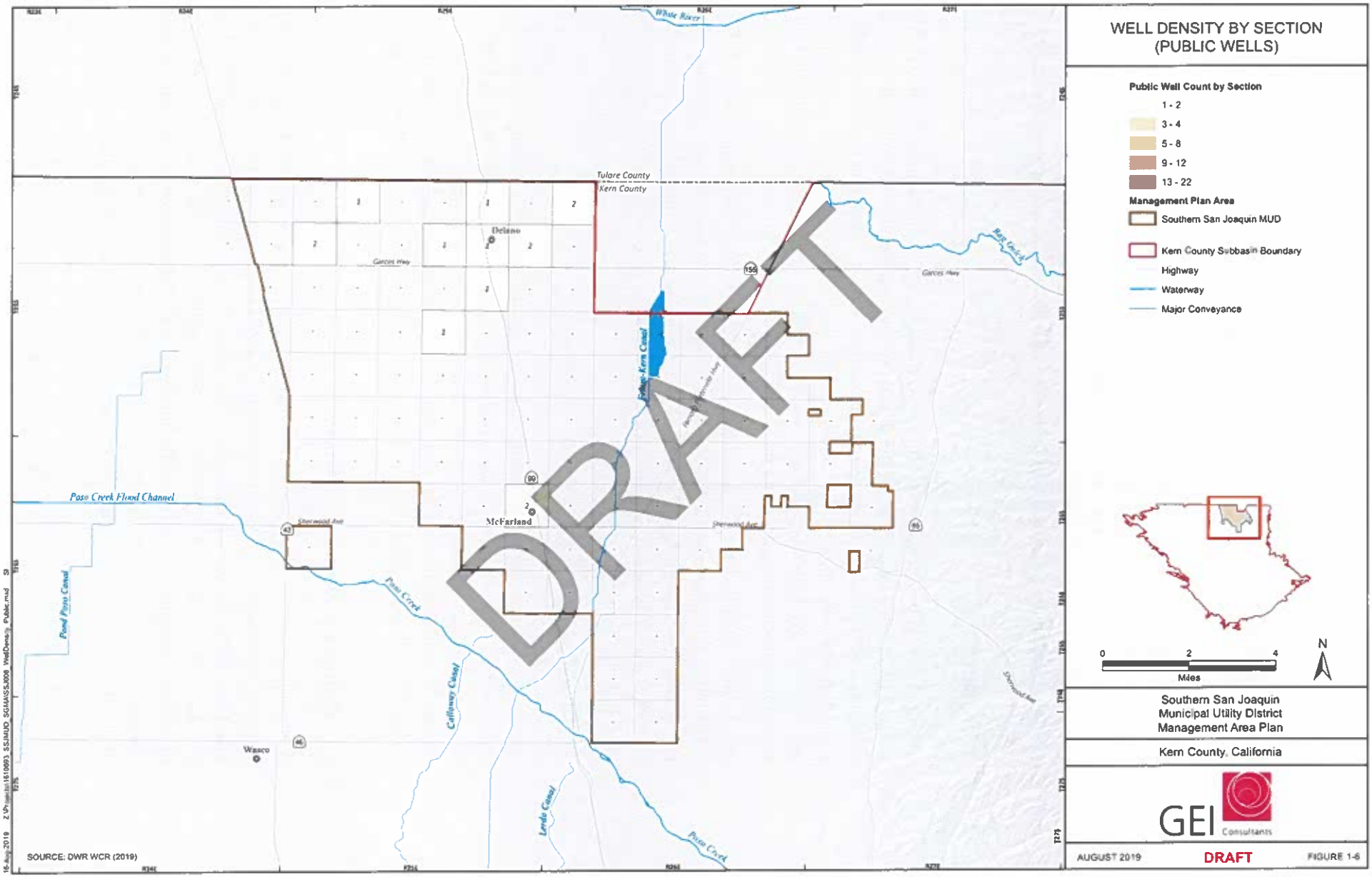
Kern County, California

GEI Consultants

AUGUST 2019 **DRAFT** FIGURE 1-3


WELL DENSITY BY SECTION
(DOMESTIC WELLS)
Domestic Well Count by Section
1 - 2
3 - 4
5 - 8
9 - 12
13 - 22
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
White River
Delano
McFarland
Wasco
Paso Creek Flood Channel
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
Friant-Kern Canal
Shafter-Wasco Irrigation Canal
Garces Hwy
Sherwood Ave
Buena Vista Creek
0
2
4
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 1-4
SOURCE: DWR WCR (2019)
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WELL DENSITY BY SECTION
(PRODUCTION WELLS)
Production Well Count by Section
1 - 2
3 - 4
5 - 8
9 - 12
13 - 22
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
White River
Delano
McFarland
Wasco
Pond Poso Canal
Poso Creek Flood Channel
Poso Creek
Calloway Canal
Lerdo Canal
Garces Hwy
Shafter-Wasco Irr.
Beardsley Canal
Bolt Gulch
DRAFT
0
2
4
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
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FIGURE 1-5
SOURCE: DWR WCR (2019)


WELL DENSITY BY SECTION
(PUBLIC WELLS)
Public Well Count by Section
1 - 2
3 - 4
5 - 8
9 - 12
13 - 22
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
Delano
McFarland
Wasco
White River
Garces Hwy
Sherwood Ave
Poso Creek Flood Channel
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
Friant-Kern Canal
DRAFT
0
2
4
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 1-6
SOURCE: DWR WCR (2019)

2. Basin Setting

The Basin Setting is made up of the hydrogeologic conceptual model (HCM), the current and historical groundwater conditions, the water budget components of the Subbasin, and the description of Subbasin management areas. This section provides the local and regional details of the HCM and groundwater conditions as context for defining and assessing sustainable management criteria and projects and management actions for SSJMUD.

2.1 Introduction

Regional details for the entire Subbasin basin setting are included in the KGA GSP basin setting chapter; whereas, most of the discussion provided in this section focuses on the extent of SSJMUD boundaries and the immediate vicinity. Pertinent details related to the entire Subbasin that apply to SSJMUD, such as the definition of the vertical and lateral extents of the groundwater Subbasin and the regional geology, regional structural setting, and aquifer hydrostratigraphy are presented in this section.

Details of this study come from SSJMUD's 2012 *Agricultural Water Management Plan* (SSJMUD, 2012), and the *Geologic Study of the Southern San Joaquin Municipal Utility District* (USBR, 1948). These studies are referenced herein. Figure 2-1 presents the current extent of SSJMUD's jurisdictional area and its proximity to other agencies within the Subbasin.

2.2 Hydrogeologic Conceptual Model

The hydrogeologic conceptual model characterizes the physical components and interaction of the surface water and groundwater systems in the study area. A brief description of the regional geology and structural setting of the area in and around SSJMUD, including the vertical and lateral extents of the groundwater Subbasin, groundwater flow, aquifer characteristics, and other physical characteristics are presented in this section.

2.2.1 Subbasin Regional Setting

As described in the KGA GSP basin setting, the Kern County Subbasin is located in the southern San Joaquin Valley, known as the Tulare Lake Region of the Central Valley. The Tulare Lake Region encompasses the Central Valley subbasins from just north of Fresno to the Tehachapi Mountains and San Emigdio Mountains at the southern end of the valley; with the Sierra Nevada Mountains (Sierra Nevada) to the east, and the Coast Ranges to the west (below Figure 2-2). SSJMUD is situated in the north eastern portion of the Subbasin. For additional information on the regional geologic and structural setting

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for the entire Subbasin, please refer to Section 2 of the KGA GSP Basin Setting chapter (Chapter 2 of the KGA GSP).

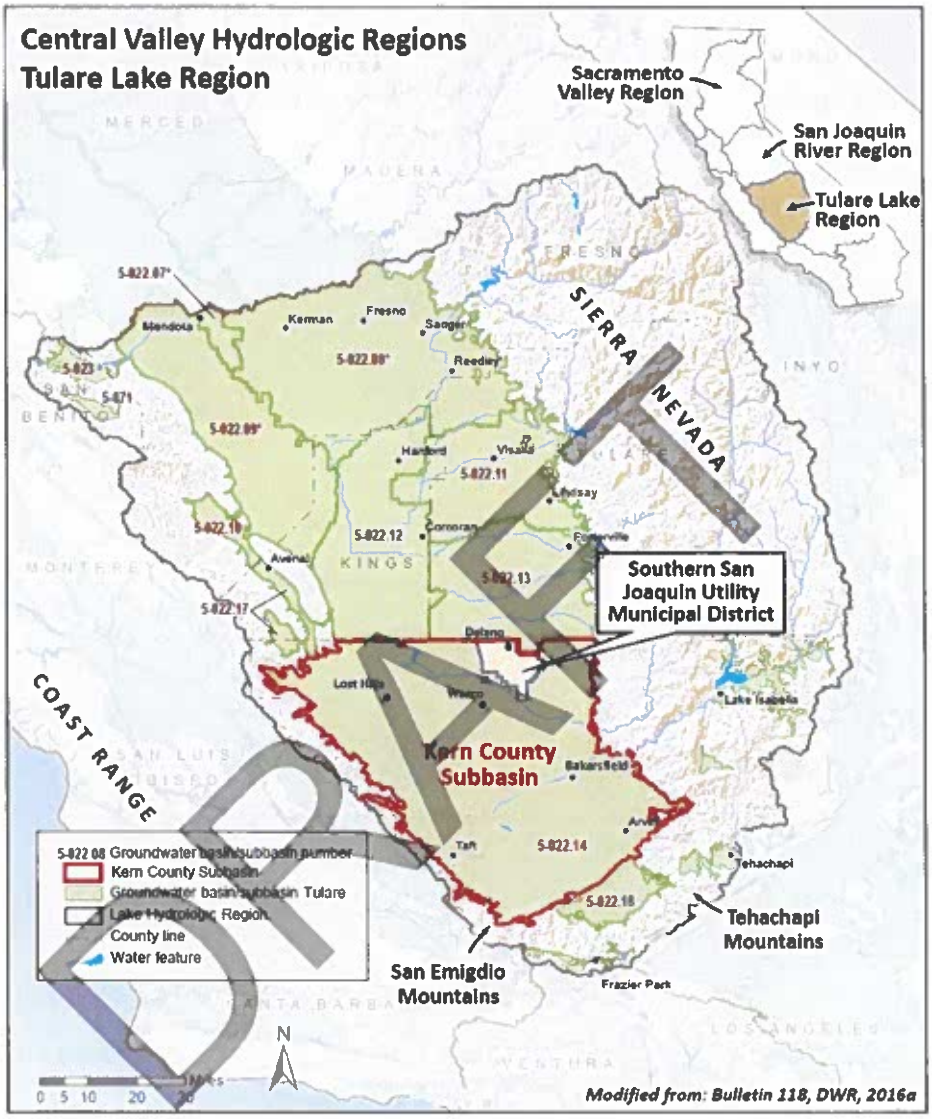


Figure 2-2: Central Valley Hydrologic Regions - Tulare Lake Region

2.2.1.1 Sediment Deposition

The southern San Joaquin Valley (and most of the Central Valley), was a large basin with marine deposition occurring from Late Jurassic and Cretaceous Periods into the Tertiary Period. Thereafter, continental deposition of alluvial, fluvial, and lacustrine sediments occurred along the margins and into the center of the valley. These younger sediments were derived from the surrounding mountain ranges (Planert and Williams, 1995). Sand, silt, and clay deposits were deposited in the study areas in a complex sequence by the Kern River and Poso Creek (Kern River Formation), flowing from the Sierra Nevada

Mountains to the east, and to a lesser extent, by streams along the Coast Range to the west. The terminus for these flows in the geologic past was Tulare Lake (Tulare Formation) (NKWSD, 2012).

A conceptual block diagram below (Figure 2-3) is provided as a general example of the sequence of deposition in the valley and shows the source of most fresh water into the basin originates from the Sierra Nevada mountains.

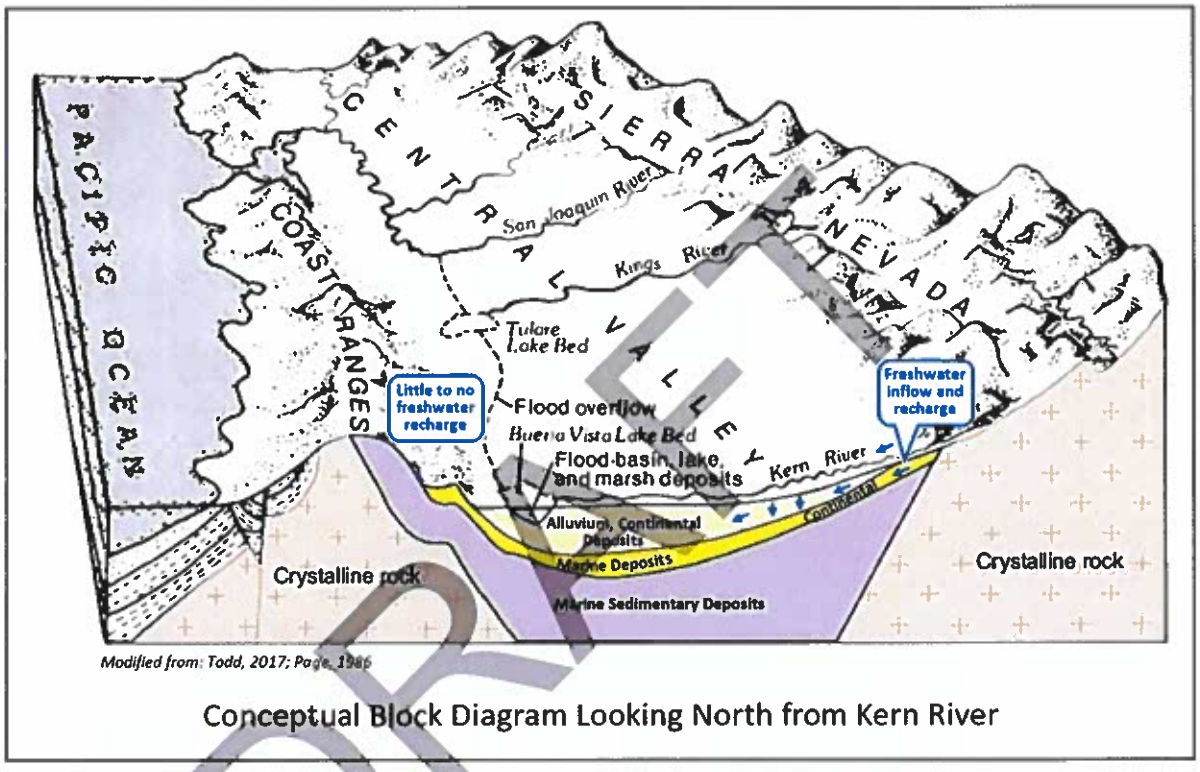


Figure 2-3: Conceptual Block Diagram from Kern River (Looking North)

2.2.2 Groundwater Subbasin Lateral and Vertical Boundaries

Within SSJMUD, jurisdictional boundaries limit the lateral extent of groundwater pumping, while natural boundaries delineate the vertical extent of groundwater with beneficial use. The KGA GSP provides context for the discussion of lateral and vertical extents of groundwater in the Subbasin. By applying California Water Code §10723.2, the bottom of the groundwater Subbasin includes groundwater that can be applied to beneficial use. The KGA GSP basin setting references criteria from the state and federal code for defining the extent of groundwater with beneficial use in the Subbasin. For details on these criteria, refer to the KGA GSP. In general, the groundwater Subbasin extent, where no exemptions or commercially producible hydrocarbons or minerals exist, likely ranges between 3,000 mg/L and 10,000 mg/L total dissolved solids (TDS) depending on the feasibility of treatment and recovery of the groundwater for beneficial

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use. The definition below provides context for the groundwater boundaries discussion in the Subbasin.

2.2.2.1 Datasets with Lateral and Vertical Distribution of Groundwater in the Subbasin

As described above, the KGA GSP basin setting discusses criteria for defining the bottom of the groundwater Subbasin. This section and subsections present datasets with general vertical distribution of groundwater ranging from 2,000 to 10,000 mg/L TDS.

Page's 1973 depth to fresh groundwater with a TDS of 2,000 mg/L is presented on Figure 2-4. There are other definitions for fresh groundwater (Heath, 1983), but for this discussion, Page's dataset is used because it is a commonly known and is a published dataset in the Central Valley. Page's (1973) base of fresh water is not however, the defined bottom of the groundwater Subbasin.

The depth to groundwater with a TDS of 10,000 mg/L (one of the criteria for the USDW), is presented on Figure 2-5. This dataset was recently developed by research in the Subbasin based on geochemical analysis of water samples and geophysical log analysis (Gillespie et al., 2017; and Kong, 2016), and provides further insight of the distribution of groundwater that may be within the range for potential beneficial use.

Both the lateral and bottom boundaries of the groundwater in the Subbasin are constrained by the primacy productive limits with depths to hydrocarbons, and aquifer exemptions with corresponding depths. However, within SSJMUD's management area, there are no aquifer exemptions or active oil fields within the District. The oil field depths to hydrocarbons are below the base of 10,000 mg/L TDS. The base of 10,000 mg/L TDS may underlie the depth to hydrocarbons of the oil fields in proximity to the District; where applicable, the shallowest of the two is considered the bottom of the Subbasin.

2.2.2.2 Conceptual profile of the Groundwater Basin underlying SSJMUD

Figure 2-6 below is a conceptual profile of the groundwater basin in SSJMUD, the groundwater basin is laterally continuous until reaching structural highs at the margins where a lot of the sediments begin to pinch out. The vertical extents are defined by the base of fresh water and the USDW. Both the base of fresh water and the base of USDW dip to the east. At about the middle of NKWSD, the base of freshwater levels out and decreases in depth toward CWD and SSJMUD. Although the conceptual profile does not illustrate the oil fields, as stated above, there are no primacy limits or aquifer exemptions within the vertical groundwater Subbasin boundaries of SSJMUD.

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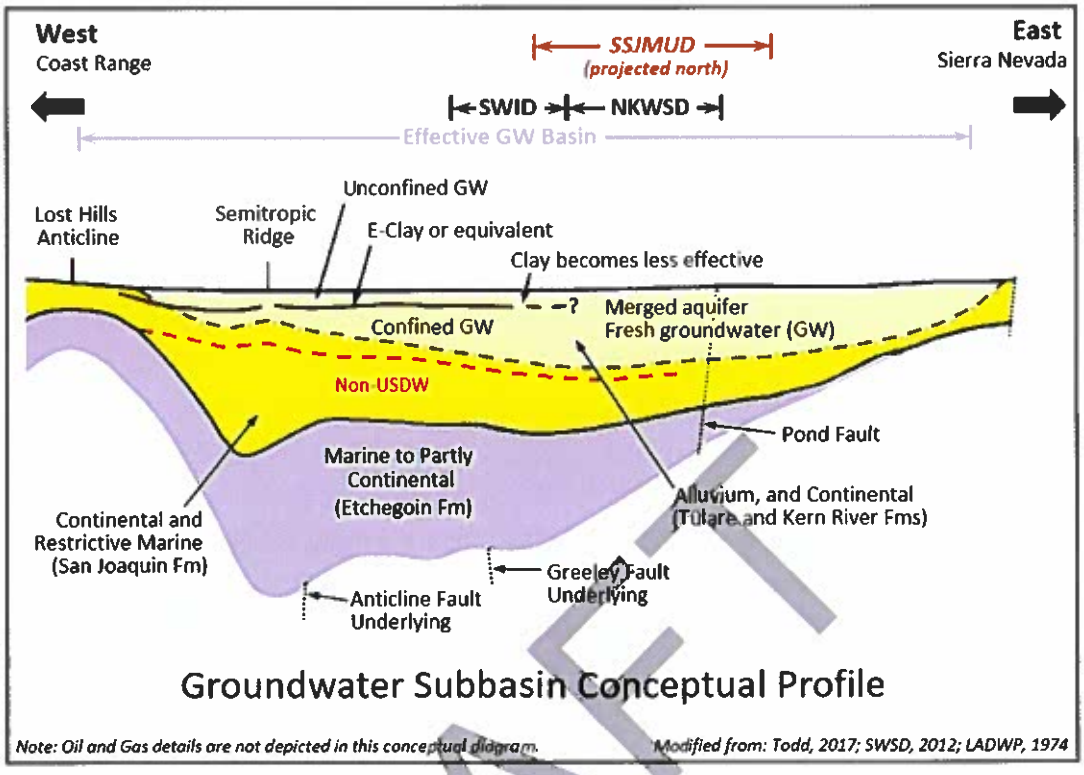


Figure 2-6: Conceptual Profile of Subbasin

2.2.2.3 SSJMUD Setting and Lateral Boundaries

SSJMUD's jurisdictional area lies in the north central portion of the Subbasin and encompasses a surface area of approximately 64,700 acres (101 square miles), plus an additional 320 acres of undistricted lands adjacent to SSJMUD's eastern boundary. The lateral boundaries of SSJMUD's jurisdictional area, shown in Figure 2-1, also include the incorporated cities of Delano and McFarland and the unincorporated community of Pond, and both the North Kern and Kern Valley State Prisons. As described above, SSJMUD is bordered by Delano-Earlimart Irrigation District (DEID) and Tulare County to the north, Kern-Tulare Water District (KTWD) undistricted lands to the east, Cawelo Water District (CWD) and North Kern Water Storage District (NKWSD) to the south, and Semitropic Water Storage District (SWSD) to the west.

2.2.2.4 SSJMUD Subbasin Vertical Boundaries

From Page's data (Figure 2-4), the base of 2,000 mg/L TDS "fresh water" ranges in SSJMUD from approximately -1,600 ft msl (~1,850 ft bgs) in the western portion of the District near T25SR25E and -2,000 ft msl (~2,400 ft bgs) in the southern central portion of SSJMUD near T26SR26E. The base of 2,000 mg/L TDS water is approximately -1,200 ft msl (~1,650 ft bgs) in the eastern portion of the District near T25SR27E.

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While the data from Gillespie et al. (2017) (Figure 2-5), does not cover the entire District, the base of 10,000 mg/L TDS is estimated to range from -1,750 ft msl (~2,100 ft bgs) in the western portion of the District near T25SR25E and -2,500 ft msl (~2,800 ft bgs) in the southeastern portion of the District, near T27SR26E.

2.2.2.5 General Observations of Base of Fresh Water

Just south of SSJMUD is the Pond-Poso Fault, which marks the northern end of the deep northwest-trending trough of fresh groundwater between Bakersfield and Wasco. This trough of fresh groundwater (-2400 ft msl) lies between the concealed Poso Creek fault to the northeast and the concealed, pre-Quaternary Greeley fault system on the southwest. Historical displacement on the Greeley Fault and historical and recent displacement on the Pond Fault may have led to this depression of Quaternary sediments that accommodate this trough of fresh groundwater. Slightly trending more northerly than the Pond Fault, is a trough to the east of SSJMUD underlying KTWD (-2800 ft msl). This trough represents the depth to fresh groundwater in the Santa Margarita and Olcese Formations and does not represent a structural and lithologic low in continental deposits as observed in the trough to the south of Pond Fault. Cross sections from KTWD confirm the depths to the Santa Margarita and Olcese Formation and Page's Base of Freshwater (KTWD, 2016). Additionally, the shallowing of the base of fresh water to -1200 ft msl underlying some parts of SSJMUD, is the transition of water quality at the base of continental deposits approaching Pliocene Marine deposits.

2.2.3 Principal Aquifers and Aquitards

Groundwater underlying SSJMUD is a part of a regional alluvial aquifer system that is heterogeneous in texture and occurs under a variety of conditions, including upper unconfined zone and lower confined zone in the western half of the district. On the eastern half of the district, the Corcoran Clay thins and loses confinement to the east, where the aquifer is unconfined to semiconfined with depth. Water quality further differentiates the alluvial groundwater system of the Subbasin with lower concentrations of TDS on the eastern side and higher TDS in the upper zone on the western side.

The production horizons (confined unconfined zones in the eastern half) of the Subbasin aquifer are generally thick and consist of interbedded layers of gravel, sand, silt, and clay of the continental deposits of the Kern River (USBR, 1948). Much of the district is underlain by alluvium of the coalesced Poso Creek Fan and Rage Gulch Alluvial Fan Below this is the Kern River Formation which interbeds with fluvio-lacustrine deposits in the western half of the district, characterized by finer grained deposits. Groundwater wells extend to depths of greater than 1,200 feet (Page, 1986; Lofgren and Klausing, 1969), and the maximum thickness of freshwater deposits ranges from roughly 1,700 ft to 2,100 ft on the east side, gradually deepening to the south and west side of SSJMUD.

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2.2.3.1 Formation Names and Descriptions within Aquifers

The aquifers underlying the study area are made up of alluvium, the Kern River Formation, and clay beds associated with lakebed deposits. For more details throughout the Subbasin, including the Santa Margarita and Olcese formations to the east of SSJMUD, refer to the KGA GSP Basin Setting chapter.

USBR (1948) describes the aquifer of SSJMUD to be made up of the "Kern River series" which overlies older marine deposits. The Kern River series is made up of a lower blue bed which is rich in silt, diatoms, and fine-grained sediment likely representative of fluvio-lacustrine conditions, and the intermediate Kern River Formation and upper "Delano Beds" or older alluvium, which are essentially identical and were deposited by coalescing alluvium derived from the weathering of the nearby highlands and Sierra to the east. USBR (1948) describes the process of deposition as "beds of sand, sandy clay, and clay [that were] laid down in a complex assemblage of discontinuous lenses, stringers, and pockets. The streams (flowing westward from the Sierra) swept back and forth across the valley floor building great alluvial fans, which grew until they coalesced and reached farther and farther out into the valley". This coalescing of discontinuous and lensoidal alluvium is what forms most of the aquifer system underlying SSJMUD. Grain sizes fine westward as the distal edges of these fans are approached.

The Kern River Formation is between 300 to 550 thick underlying SSJMUD (USBR, 1948). This formation consists mostly of poorly sorted fluvial sandstone and conglomerate with interbeds of siltstone or mudstone that becomes finer grained northward and westward (Bartow and Pittman, 1983). Some of the thicker siltstone or mudstone interbeds may represent deposits of small ephemeral lakes or ponds (Bartow, 1983). The Kern River Formation is coarsest in its easternmost exposures, generally the area south of the Kern River, where the composition includes a cobble conglomerate with boulders near the base and pebbly sandstone (Bartow and Pittman, 1983).

The modified E-clay of the Corcoran Clay member has been mapped by Page (1986) in the western half of the district. Below is a brief description of the Tulare Formation for which likely only the Corcoran Clay Member is present in SSJMUD. In general, the Tulare Formation is located west of SSJMUD, near the western half of SWSD.

The Tulare Formation is Plio-Pleistocene in age, and in conjunction with the Kern River Formation (Mio-Pliocene to possibly early Pleistocene), represents west-east facies change across the Subbasin. The Tulare and Kern river formations are moderately to highly permeable and are major freshwater sources within the Subbasin (Page, 1986; SWSD, 2012).

The Tulare Formation (western Subbasin) contains up to 2,200 feet of interbedded, oxidized to reduced sands, gypsiferous clays, and gravels derived primarily from Coast Range sources. The permeable deposits of the Tulare Formation are divided into upper

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and lower units, separated by the Corcoran Clay member of the formation. Groundwater beneath the Corcoran Clay is typically confined to semiconfined (Page, 1986; SWSD, 2012). In addition to its confining properties, laboratory tests indicate that the clay is highly susceptible to compaction (Faunt, et al., 2009).

The Corcoran Clay occurs laterally in the north Subbasin (~34 miles wide in extent) from Delano to Lost Hills (Figure 2-7) and narrows to the south just to the west of the Kern River banking facilities to about 3.5 miles wide. Within the central area of the Subbasin between the Kern River and Highway 46, the depth to the Corcoran Clay varies from 300 to 450 feet. Further north to the county line, the depth varies from 200 feet to the east and 750 feet to the west. The Corcoran Clay, most notably the modified E-clay (Page, 1986) is generally very fine grained; however, isolated, coarser zones are possible, particularly where the clay is less than 20 feet thick. The thickness of the clay is as much as 100 feet in a small area of the southern Subbasin but typically varies between 20 and 40 feet. In the northern Subbasin, the clay might be as thick as 60 to 80 feet in isolated areas, but the thickness typically varies between 10 and 30 feet. The Corcoran Clay is also not present in the eastern/northeastern part of the Subbasin from the cities of McFarland and Bakersfield, to Edison (Faunt et al., 2009).

Older alluvium or the "Delano Beds" overly the Tulare and Kern River formations. These deposits also make up a portion of SSJMUD's aquifer. They are composed from 150 to 300 feet of Pleistocene-age lenticular deposits of clay, silt, sand, and gravel that are loosely consolidated to cemented (USBR, 1948 and DWR, 2006). These deposits are moderately to highly permeable and yield sufficient water to wells. They are often indistinguishable from the underlying Tulare and Kern River formations (DWR, 2006).

The Holocene-age younger alluvium is not saturated underlying the district (USBR, 1948). According to USBR, the younger alluvium differs from older alluvium in that the former is not oxidized or cemented and is usually loose.

2.2.3.2 Physical Properties of Each Aquifer and Aquitard

Aquifer parameters within the Subbasin are available for both well pumping tests and calibrated groundwater models. For details on aquifer parameters estimated for the Subbasin-level, refer to the KGA GSP Basin Setting. Aquifer properties reported herein include hydraulic conductivity which is a function of an aquifer's ability to move or transmit water (transmissivity) through an aquifer of a given saturated thickness, and the specific yield (unconfined systems) and storage coefficient (confined systems), which are functions of an aquifer's ability to store and release water from storage (storativity).

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Table 2-1: Aquifer Parameters for Kern County Subbasin

Township Range	Estimated Specific Capacity (gpd/ft)	Source
T25S-R25E	35,000	Davis et. al. 1964
T25S-R26E	36,000	Davis et. al. 1964
T26S-R25E	85,000	Davis et. al. 1964
T26S-R26E	68,000	Davis et. al. 1964

Pumping test data within SSJMUD were not available at a district-level; however, aquifer test data derived from pumping tests in the Subbasin, some of which are in proximity to SSJMUD, are briefly described below. Pumping test data were taken from two sources: 1) relatively short (1.5- to 5-hour) pumping tests by the USGS at irrigation wells during the late 1950s and 1960 (McClelland, 1962), and 2) from constant rate pumping tests from engineering consultants in the 2000's (Todd, 2018). The depth of these test wells varied from 98 to 1,500 feet below ground surface (bgs) (median: 650 ft bgs), and pumping rates varied from 44 to 4,480 gpm (median: 2,500 gpm). The analysis included the use of water level recovery data from pumping wells and water levels from observation wells. From these tests, the hydraulic conductivity was estimated at ranges from 3 to 250 feet per day (ft/d; median: 60 ft/d), which is consistent with published ranges for clean, medium- to coarse-grained sand (Heath, 1983), or for a fine sand to coarse gravel (Schwartz & Zhang, 2003). These values also fall within the range of the groundwater models that were partially calibrated with these data (C2VSim; CVHM; Todd, 2018; Todd, 2017).

Estimates of specific capacities observed from pumping in SSJMUD have been reported by USGS (McClelland et. al., 1962), and are included in Table 2-2 below. These data have been used for various Transmissivity estimates in the past and may prove useful for future work.

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Table 2-2: SSJMUD Specific Capacity

SSJMUD Specific Capacity	
Township Range	Estimated Specific Capacity (gpd/ft)
T25R25	35,000
T25R26	36,000
T26R25	85,000
T26R26	68,000
Source: McClelland et al, 1962	

Corcoran Clay

The Corcoran Clay Member of the Tulare Formation is most commonly known for its fine-grained beds; however, lithology does vary from fine (clay and silt) to coarse (sand) texture (Page, 1986; Faunt et al., 2009). Faunt et al., (2009) compiled and estimated horizontal hydraulic conductivities within the range of 0.0024 to 33 ft/d, which is within the range of silt to fine/medium sand (Heath, 1983). A range of vertical hydraulic conductivity was estimated from permeameters and field tests between 6.6 x 10-6 ft/d to 1.5 x 10-3 ft/d (Faunt et al., 2009), representing a potential vertical anisotropy range of 3.6 x 102 to 2.2 x 104. As noted by Faunt et al., (2009) laboratory permeameter tests may have underestimated the hydraulic conductivity while field testing may have overestimated hydraulic conductivity due to potential for intra-borehole flow across the clay. Additionally, recent inelastic compaction of the Corcoran Clay in areas of subsidence may have further reduced vertical hydraulic conductivity (Faunt et al., 2009).

Specific Yield and Storage

Storage of an aquifer is primarily described and quantified by the storativity or the volume of water released from storage per unit surface area of the aquifer per unit decline in hydraulic head. It is important to note that while storativity applies to both confined and unconfined systems, it can be further simplified for these two systems. Storativity accounts for aquifer compression and water expansion (specific storage components), which are the primary factors for estimating storage in confined systems; thus, for confined systems, the specific storage or storage coefficient is most often reported. In contrast, for unconfined systems, the specific yield or effective porosity (gravity-driven dewatering of an aquifer) better represents storativity because aquifer compressibility and water expansion are somewhat negligible in unconfined systems. For unconfined

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systems, specific yield is most often reported, and is a function of porosity and specific retention.

For confined systems, the aquifer compressibility of the storage coefficient can be further defined as elastic and inelastic skeletal specific storage, where inelastic storage will be lost once compression and dewatering occur. It is estimated that in the Central Valley, the inelastic specific storage typically is 30 to several hundred times larger than the elastic skeletal specific storage (Faunt et al., 2009; Ireland et al., 1984). Where fine-grained deposits with inelastic storage are thick in the aquifer system, water released could be a major source of water, but could also result in a permanent loss in storage capacity of fine-grained sediments.

Specific yield underlying SSJMUD was estimated by USBR (1948). The estimates were only meant to be a preliminary characterization; nonetheless, they are presented herein. They were evaluated based on soil type from well logs at or just below the water table at the time of the study. The average estimated specific yield in SSJMUD (from the Kern County line to Poso Creek) is roughly 7.6 percent (USBR, 1948). The yield is as high as 13 percent along Poso Creek. Just north of SSJMUD in the Rag Gulch channel, the yield was estimated at 14 percent (USBR, 1948). Underlying the western half of the district, the yield was estimated as low as 5 percent (USBR, 1948). USBR's mapped specific yield data is included in Appendix D.

2.2.3.3 Geologic Features that Significantly Affect Groundwater Flow

The large, asymmetrical, northwestward-trending trough of the Central Valley, and consequently the southern Tulare Lake Basin, is the principal structure controlling the occurrence and movement of groundwater in the area. Groundwater within the Subbasin is laterally bounded to east, south, southwest, and west by the surrounding highlands (Sierra Nevada, Tehachapi, and San Emigdio Mountains, and Coast Ranges, respectively) and crystalline basement rock. Groundwater flows from higher elevation recharge areas of the highlands from tributary rivers and streams toward the center axis/trough of the valley and then northward outside of the Subbasin (Page, 1986), except where fault barriers and extensive recharge zones cause local variation in groundwater flow changes such as in the center of the Subbasin along the Kern River. Sediments are several thousand feet thick in the central portions and western side of the basin but considerably thinner where deposited on and draped over the Bakersfield Arch which extends from the southeast of Edison to the northwest of Shafter (Figure 2-8) (Bartow, 1991). In general, most of the confinement of ground water occurs near the axis of the valley because of more extensive confining beds of the Tulare Formation, such as the Corcoran Clay (Page 1986). Figure 2-7 presents the extent, depth, and approximate thickness of the Corcoran Clay as estimated by the USGS (Page, 1986).

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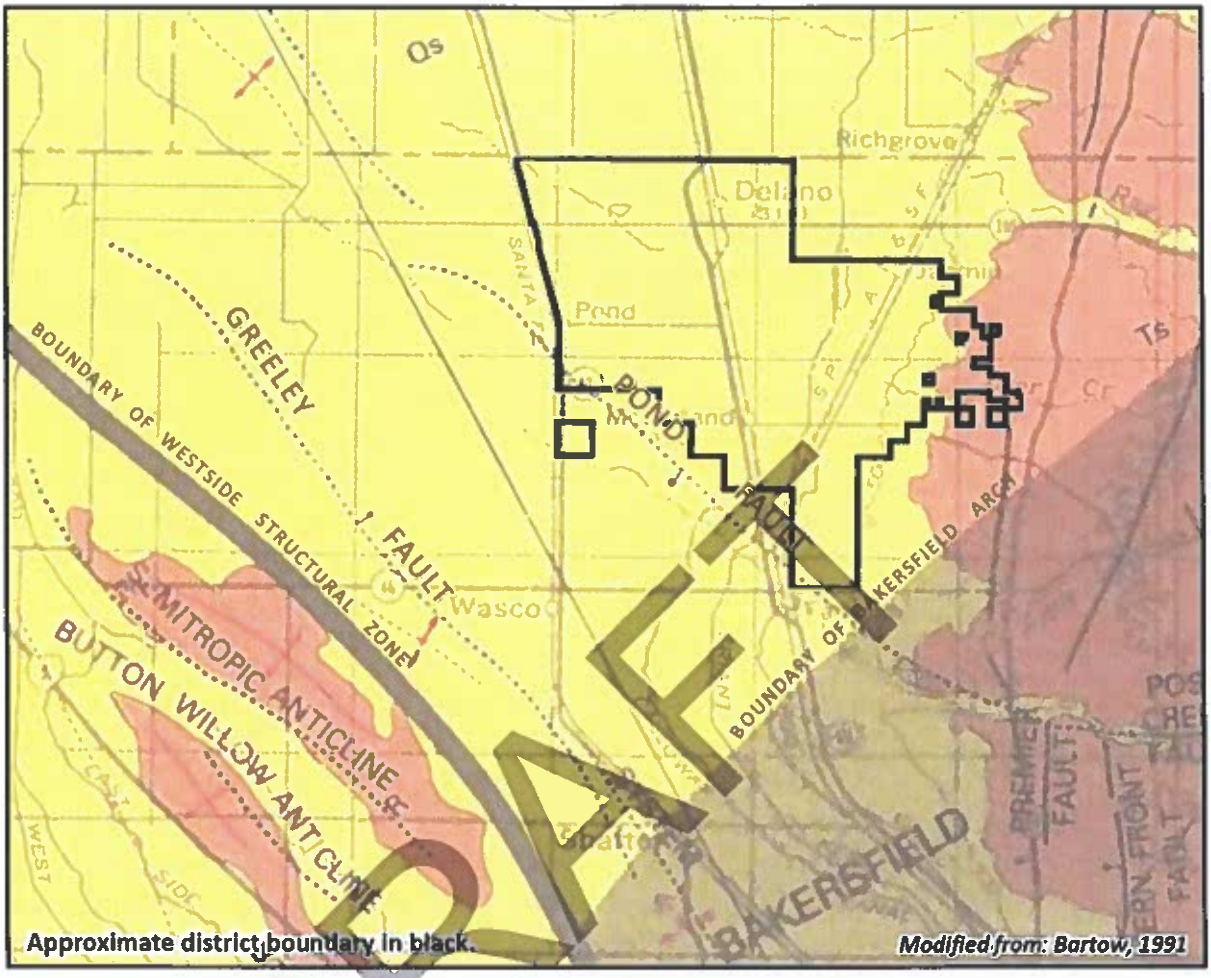


Figure 2-8: Geologic Map (Bartow, 1991)

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Faults

Numerous faults are mapped within the Subbasin and have been grouped by age of displacement (Figure 2-9, CGS, 2010; and Figure 2-8). Most of the active faults within the Subbasin are located on the east, south, and southeastern sides of the Subbasin. Many of the faults are oriented toward the northwest, parallel to the San Andreas Fault, while several faults are oriented northeasterly. The Pond-Poso Fault reportedly alters groundwater flow in the valley (DWR, 2006). Existing literature is not clear about the number of the faults in the Subbasin that are barriers to groundwater flow, although Faunt et al., (2009) included four northwest-trending "potential horizontal flow barriers" in the groundwater Central Valley Hydrologic Model (CVHM) near Semitropic Ridge and Buttonwillow Ridge and east toward Pond-Poso Fault. Although these faults are reported in regional datasets, LADWP (1974), indicates that Semitropic anticline fault system and Greeley fault system do not show displacement in sediments shallower than 10,000 feet (well below the base of USDW); therefore, they are not directly impactful to groundwater flow in the Subbasin.

The Pond-Poso Fault System reportedly affects groundwater flow. This system is a zone of four subparallel breaks/faults 2/3 mile in width, which extends from just east of Trico anticline (T25S-R24E) southeasterly approximately 48 miles through the Poso Creek oil field to the base of the Sierra Nevada (LADWP, 1974). Based on seismic reflection lines and vibratory seismic profile lines, the Pond-Poso Fault dips southwesterly at 50 to 70 degrees. LADWP (1974) and Holzer (1980) documented approximately 30 to 65 feet of difference in water levels across the fault zone, respectively from 1974 and 1978 studies. Holzer (1980) observed that fault offset of groundwater levels was greater during dry years when the lowest seasonal water level low occurred. The Pond-Poso Fault System is also documented to offset sediment in the subsurface. This vertical offset of sediment ranges from approximately 20 to 80 feet in the upper 1,000 feet of the subsurface (LADWP, 1974 and PGA, 1991), and the displacement decreases northwesterly along the fault system (LADWP, 1974). Exploratory trenches documented offset of 9 inches at 10 feet depth, and slickensides in the trenches show near vertical, oblique slip movement (LADWP, 1974). Coincidentally, Holzer (1980) concluded that 9 inches of offset had occurred along the Pond-Poso Fault System since the 1950's. Holzer (1980) observed fault movement from February 1977 to March 1979 during seasons of water level decline.

2.2.3.4 Cross Sections with Structures that Affect Groundwater Flow in SSJMUD

The purpose of developing cross sections for this management area plan was to identify prevailing conditions that affect groundwater flow and groundwater quality in the study area, and not to focus on correlating detailed stratigraphy. Furthermore, sediments underlying the study area are highly lenticular and, although some locally continuous clays are present, the eastern extent of the E-clay or other equivalent confining beds is

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debatable (Logan, 1992); thereby making accurate correlations difficult. However, to provide context for groundwater flow within the study area, a brief discussion of correlated stratigraphy in the literature is provided below, with the understanding that developed cross sections for this management area plan do not fully attempt to correlate stratigraphy across the study area.

Historical Cross Sections

Historical cross sections are included in Appendix E. A few observations from the historical cross sections are provided below:

- Lofgren and Klausing (1969; B-B' Hydrologic Section and Geologic Section) provide some detail on the transition from an upper and lower aquifer zone in western SSJMUD to one aquifer zone with the absence of the Corcoran E-Clay in the southern and eastern portion of the district. The upper zone is likely unconfined to semiconfined while the lower zone is confined. In the south and east the aquifer system is semiconfined to confined with depth.

- Few wells are installed in the upper zone where water quality is poorer than below the Corcoran (C-C' Hilton et al, 1963; and H-H' Davis et al, 1959).

- The base of freshwater deepens eastward from SWSD and reaches an elevation of -1700 ft msl west of Delano at which point it begins to shallow eastward likely due to the proximity of the contact with Pliocene marine strata. The San Joaquin Formation is present under the westside of the district and likely becomes thin to nonexistent on the eastern side of the district, where the Etchegoin Formation is the upper contact of Pliocene marine deposits (Schierer et al, 2007). East of SSJMUD, the base of fresh water may be mixed into the Pliocene marine strata, due to proximity to recharge areas in foothills and prominent aquifers underlying the marine strata, such as the Santa Margarita and Olcese Formations (B-B'; Lofgren and Klausing, 1969).

- The trough of fresh water in central SSJMUD deepens southward into NKWSD (H-H' Croft, 1972); likewise, oxidized deposits associated with alluvial fans are thicker in the central portion of SSJMUD and progressively toward the south (Croft, 1972; B-B' geologic section of Lofgren and Klausing, 1969).

- PGA (1991; C-C') documented the displacement of bedding across the Pond Fault as observed in seismic and down hole geophysics. PGA's magnitude of displacement across the fault is consistent with LADWP (1974) (20 to 80 of displacement), except that LADWP reported the fault zone dipping to the southwest.

- Additional historical cross sections of lithology are included in Appendix E

- from the USBR (1948) investigation.

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Current Cross Sections

Cross sections for SSJMUD are provided as Figure 2-10 and Figure 2-11 of this management area plan (north to south and east to west trending). The cross sections include general lithology from well drilling logs (DWR, 2017a), surficial geology along with folds and faults by the California Geological Survey (CGS, 2010a, b), the base of fresh groundwater (Page, 1973), the E-Clay confining layer (DWR, 2018), groundwater elevations for the upper and lower aquifer zones, and general interpretations of faults and folds underlying SWSD. The E-Clay data on the cross sections represent the C2VSim Corcoran model layer. The C2VSim Corcoran model layer was compared with the CVHM model layer (USGS, 2018) and mapped Page (1986) modified "E" clay extent and was found to be in general agreement. The C2VSim Corcoran layer was chosen because C2VSim fine-grid model is the basis for the Subbasin's groundwater model. The cross sections also include a representation of general well construction across the study area. Logged fine-grained deposits in well logs are depicted to provide an interpretation of dipped bedding in the subsurface, as observed from seismic data correlations from PGA (1991), and cross sections by B-E (1968).

2.2.3.5 General Water Quality of Principal Aquifers

A general summary of water quality variation both laterally (from west to east across the Subbasin) and vertically (shallow-deep within the Subbasin) is provided in the table at the beginning of Section 2.2.2. In general, water quality is poor in the western third of the Subbasin and in shallow perched zones, generally above shallow beds of the Corcoran Clay. Groundwater is progressively fresher below the Corcoran Clay, toward the center of the basin, and eastern half of the Subbasin. Water quality within the Subbasin is described in more detail in Section 2.3.4 herein.

2.2.3.6 Primary Use of Each Principal Aquifer

The unconfined zone to the east of the Corcoran Clay and the production zone beneath and outside the extent of the Corcoran Clay are the key zones within the Subbasin aquifer system that provide the bulk of water production for beneficial use. The primary uses of the Subbasin's aquifer system include agricultural, municipal, domestic, and storage for the banking of surface water.

2.2.3.7 Summary of Beneficial Uses and Users of Groundwater

Land use in SSJMUD is 70 percent agriculture, 9 percent urban/industrial/residential, and 21 percent open space. According to the 2014 SGMA legislation, beneficial users of groundwater and property interests potentially affected by the use of groundwater include:

- Agricultural Users
- Domestic Users
- Municipal Well Operators

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- Public water systems
- Local Land Use Planning Agencies, and
- Environmental Users

According to DWR well completion reporting and the CASGEM program, groundwater wells are constructed for a variety of uses including:

- Domestic / Residential
- Irrigation
- Stock
- Municipal / Public
- Monitoring / Observation
- Industrial
- Cathodic Protection
- Other / Unknown

2.2.4 Data Gaps and Uncertainty in the Hydrogeologic Conceptual Model

The primary data gaps in the hydrogeologic conceptual model include:

- Groundwater characterization on the eastern and western flanks of the Subbasin as further presented in Section 2.3 Groundwater Conditions, and
- Groundwater quality of the primary aquifer zones and confined zones on the eastern and western flanks of the Subbasin, from wells screened solely in a single aquifer zone.

2.2.5 Mapped Physical Characteristics

2.2.5.1 Topographic Information

Figure 2-12 presents a topographic map of SSJMUD's administrative area and local proximity. The east side of the district is rolling upland with steep-sided gulches due to natural drainage and topographic relief (USBR, 1948). The central portion of the district is marked by a belt of westerly slopes 30 to 40 feet per mile with recent alluvial fans (Poso and Rag Gulch fans) that have coalesced to the west. Elevation ranges from 700 feet msl on the eastern edge to 250 feet msl on the very northwestern edge of the district. Poso creek is located just south of the district. The FKC cuts through the center of the district, with the cities of Delano and McFarland along US-99 running west of FKC. North Kern State Prison and Kern Valley State Prison are located west of Delano.

2.2.5.2 Surficial Geology (Including Location of Geologic Sections)

Surficial geology of the Subbasin has been documented in a variety of previous investigations and is presented on Figure 2-8 and Figure 2-9 (Bartow, 1991 and CGS, 2010). According to the CGS (2010a), the western part of the district consists mainly of

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Pleistocene to Recent unconsolidated and semi-consolidated alluvial (Q of Figure 2-9) lake, playa, and terrace deposits. USBR (1948) reports that groundwater does not occur in the young alluvium underlying the district. Older Pleistocene alluvium (Qao) is present in the eastern portion of the district on top of Pliocene-Pleistocene deposits (QPc) of sandstone, shale and gravel deposits, including the Kern River Formation.

As described by USBR (1948), the surficial geology does control some of the topographic features of the district. The rolling upland topographic area on the east is developed by erosion in Pliocene to Pleistocene alluvial fan and flood plain sediments. The broad west-sloping valley floor is situated on the medial and distal portions of the alluvial fans.

Bartow (1991) provides a similar map (Figure 2-8) as the CGS map but refers to Quaternary alluvial and lacustrine sediments (Qs) on the valley floor and Tertiary sedimentary rocks (TS) in the very eastern edge of the district. The map shows the location of the Bakersfield Arch to the southeast as well as the boundary of the westside structural zone to the southwest of the district and the Pond Fault trending along the southeast border of the district. As mentioned in the previous sections, the Pond Fault displaces bedding and has been documented to affect horizontal groundwater flow, although it is not considered a significant barrier to flow.

Page (1986) provides a somewhat different interpretation of the surficial geology, as discussed in the KGA GSP Basin Setting. Most of the valley is made up of Miocene to recent continental deposits (QTc) – a heterogenous mixture of gravel, sand, silt, and clay with some layers of conglomerate, sandstone, siltstone, and claystone. The western half of the district is made up of Recent flood basin deposits (Qb) – clay, silt, and some sand.

2.2.5.3 Soil Characteristics

Soils within the Subbasin have two general origins that are approximately delineated by the trough of the valley, which also mirror depositional patterns as mapped in surficial geology. The eastern alluvial fans were deposited primarily by runoff from the Sierra Nevada, Tehachapi, and Transverse mountain ranges. These soils are of igneous and metamorphic origin; are typically well drained, very low in salinity, and ideal quality for agriculture. The northwestern alluvial fans originated from Coast Range sedimentary rock formed on the sea bottom. This northwest region tends to have more areas with poorly drained soils of relatively marginal quality (Provost & Pritchard, et al., 2015).

Figure 2-13 and Figure 2-14 present the soil distribution within the Subbasin as defined by U.S. Dept. of Agriculture (USDA), National Resources Conservation Service, Soil Survey Geographical Database (SSURGO) as obtained from the DWR SGMA Data Viewer website (2018). More detailed soil survey data can be found in four USDA reports on various portions of the Subbasin: Soil Survey of Kern County, California (USDA, 1981, 1988, 2007, and 2009), including recent online updates.

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2.2.5.4 Hydrologic Soils Groups

For the purposes of SGMA, a useful index of a soil's capacity to infiltrate precipitation and applied irrigation water is the NRCS Hydrologic Soils Group classification. Hydrologic Soils Groups typical of the Study area are defined below and are displayed on Figure 2-13 was developed using data from the NRCS' Soil Survey Geographic Database (SSURGO).

- Hydrologic Group A – "Soils in this group have low runoff potential when thoroughly wet. Water transmitted freely" (NRCS, 2012). Group A soils have a high infiltration rate due to well drained sands or gravelly sands giving the group the highest potential for contributing to groundwater recharge.

- Hydrologic Group B – "Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission is unimpeded" (NRCS, 2012). Group B soils are moderately well drained due to moderately fine to coarse textures and have the second highest potential permeability and potential for contributing to groundwater recharge. These soils are present on the east, west, and south sides of the valley floor.

- Hydrologic Group C – "Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission is somewhat restricted" (NRCS, 2012). This group has limited potential to contribute to groundwater recharge. Group C soils have a low infiltration rate due to their fine texture or because of a layer that impedes downward movement of water. These soils are present along the valley floor, along the eastern highlands, and at various locations along the northwestern side of the Study area.

- Hydrologic Group D – "Soils in this group have high runoff potential when thoroughly wet. Water transmission is very restricted" (NRCS 2012). This group has a very limited capacity to contribute to groundwater recharge. These soils have a very slow infiltration rate due to the presence of clay and are located primarily along the northern boundary of the Study area.

2.2.5.5 Taxonomic Soil Orders

Figure 2-14 displays taxonomic soil orders for the study area north of the Kern River, as defined by the Soil Survey Geographic Database (SSURGO) mapping obtained from the DWR SGMA Data Viewer website (2018). This figure shows six soil orders with the most prominent being Aridisols and Entisols and Inceptisols along the eastern highland mixed with Alfisoils, Mollisols, and Vertisols. Based on the NRCS publication Keys to Soil Taxonomy (NRCS, 12th edition, 2014), the following characteristics are associated with each of these soil types:

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- Ardisols are dry soils characterized by a low humus, light colored surface horizon with a subsurface accumulation of soluble salts, silicate clays, and possibly a cemented layer of calcium carbonate, calcium sulfate (gypsum) or silica.

- Entisols are characterized by the absence of soil horizons due to recent deposition or active erosion under extreme wet or dry conditions.

- Inceptisols exhibit a weak appearance of soil horizons overlying a weathering-resistant parent material.

- Alfisols are characterized by well-developed soil horizons enriched with aluminum- and iron-bearing (Al/Fe) minerals but depleted of calcium carbonate. Translocated clays typically form a layer with relatively high amounts of mineral nutrients (calcium, magnesium, sodium, and potassium).

- Mollisols are characterized by a thick, dark surface horizon of humus, which typically originates from native grass vegetation with mineral nutrients present in most horizons.

- Vertisols are clay-rich soils (>30%) with significant cracking during the dry season due to the shrink-swell response of the clay minerals during the dry and wet seasons. The shrink-swell action produces significant vertical mixing of the soil.

2.2.5.6 Natural Recharge, Direct Recharge Areas, and Potential Recharge Areas

Direct recharge, potential recharge, and in-lieu recharge are differentiated in this section from natural recharge.

- Natural recharge occurs by groundwater underflow from adjacent sources, precipitation exceeding evapotranspiration to allow deep percolation in a subbasin, or from deep percolation of natural surface waters flowing into the Subbasin.

- Direct recharge is either planned or unplanned deep percolation of surface water from unlined conveyance, field application, managed recharge, and spreading operations.

- In-lieu recharge refers to instances where surface water is applied to lands that otherwise would have been irrigated using groundwater. Imported surface water for in-lieu recharge to the study area is conveyed through the same pipelines and canals as contracted imported water. These conveyances are described in the surface water bodies section of this management area plan. In-lieu recharge will be further discussed in the water budget section of this management area plan because it is an accounting aspect of water input to the basin. It represents the application of surface water for use to meet water demands and does not represent direct recharge to the subsurface for the purposes of replenishing aquifers, although it benefits the aquifer system by alleviating groundwater pumping demand.

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2.2.5.7 Natural Recharge

As discussed in the KGA GSP Basin Setting, natural recharge to the Subbasin occurs mainly by underflow or surface recharge from the eastern and southern highlands (Sierra Nevada and Tehachapi Mountains). The surface water bodies as a source of recharge are discussed in the next section.

Fresh water primarily recharges the aquifer underlying the district, from the east and southeast where the E-Clay or other beds are not effective confining units. These areas of recharge extend from the Kern River and Poso Creek through the fans of alluvium spreading out from these tributaries.

In general, natural recharge by precipitation is minimal in the study area, and may only occur in extreme wet years, because typically evapotranspiration exceeds the amount of natural precipitation to the Subbasin (Provost and Pritchard et. al., 2015).

2.2.5.8 Direct Recharge

In SSJMUD, direct recharge to groundwater occurs from infiltration through unlined canals and application of irrigation water more than the total ET of farmland that migrates below the root zone. Direct recharge is planned in the future for SSJMUD via spreading grounds.

2.2.5.9 Potential Recharge Areas

As described in the KGA GSP Basin Setting, the Soil Agricultural Groundwater Banking Index (SAGBI), may further estimate groundwater recharge suitability; however, the dataset may be limited to the shallow subsurface at or just below the root zone (O'Geen et al, 2015). The California Soil Resource Lab at University of California Davis has developed an online application (https://casoilresource.lawr.ucdavis.edu/sagbi/) to present the SAGBI, which estimates groundwater recharge suitability based on five major factors: deep percolation, root zone residence time, topography, chemical limitations, and soil surface condition.

UC Davis mapping coverage of the SAGBI indicates a moderately good to excellent rating for the Poso Creek alluvial fan area near SSJMUD. SAGBI ratings are moderately poor to very poor along the western portions of the district.

2.2.5.10 Surface Water Bodies and Supplies

Figure 2-16 shows the location of surface water bodies near SSJMUD according to the National Hydrography Dataset (NHD). The federal FKC, as well as Poso Creek, and other significant ephemeral streams that flow from the mountains. Although the Kern River doesn't flow through the District, it is the most important local source of surface water to Kern County and to NKWSD, which is to the south of SSJMUD. The Kern River has been regulated by the Isabella Dam and Reservoir since 1954. The dam and reservoir are operated by the U.S. Army Corps of Engineers and the distribution of water

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is administered by the Kern River Watermaster. Poso Creek and the Kern River provide local surface water during the wet season and during above normal and wet water years. Irregularly occurring flows are captured, to the degree possible, by spreading grounds and recharge facilities as described above in each district.

2.2.5.11 Source and Point of Delivery for Imported Water Supplies

SSJMUD uses both groundwater and surface water from local and imported sources. In the Subbasin, the Kern River is the primary source of local supply. However, Poso Creek and other minor streams contribute occasionally.

Imported water is supplied to SSJMUD by the CVP from the Friant Division. The FKC is a feature of the CVP. The canal diverts water from Millerton Reservoir, created by Friant Dam on the San Joaquin River, and extends southward a distance of 152 miles through Fresno, Tulare, and Kern counties to its terminus at the Kern River near Bakersfield. Water districts along the east side of the San Joaquin Valley entered into long-term water supply contracts with the Bureau of Reclamation, which provide for the delivery of three types of water; Class 1, Class 2, and Section 215. SSJMUD holds a contract for Friant Division for both Class 1 and Class 2 water. Figure 2-17 shows the FKC and indicates where water from this canal is delivered to SSJMUD.

Section 215 Water

Section 215 Water is available in exceptionally large water supply years and in infrequent and otherwise unmanaged flood flows of short duration. This category of water is not storable for project purposes (i.e., for meeting contract obligations for Class 1 and Class 2 water). Section 215 water can be made available under temporary contracts to districts who are not long-term Friant contractors, a mechanism some districts in the North of the River area that are not Friant contractors have exercised. The historical allocation priorities for section 215 water are as follows:

1. Long-term contractors;
2. Cross
3. Other parties within the Friant Division service area with direct delivery capabilities;
4. CVP contractors outside of the Friant Division service area; and
5. Other parties.

SSJMUD has purchased Section 215 water in the past when it has been available, and the District has the ability to either bring it in-district with available capacity in the FKC or the ability to bank the water through agreements with entities in the Subbasin (e.g. NKWSD) or outside of the Subbasin (e.g. Kaweah Delta Water Storage District).

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2.3 Current and Historical Groundwater Conditions (Reg. § 354.16)

2.3.1 Groundwater Trends

Annual groundwater elevation contour maps covering much of SSJMUD have been prepared by KCWA in Water Supply Reports since before the 1990s. These maps provide seasonal high groundwater level conditions from spring water level data prior to most of the active groundwater pumping during peak evapotranspiration (ET) and growing season conditions.

Below is a generalized diagram of groundwater flow in the Subbasin (Figure 2-18). In the absence of pumping or significant barriers, groundwater naturally flows from high elevation points of recharge to lower elevation points with less recharge. Based on a review of the 1995 to 2017 Schmidt and Associates maps and historical groundwater data from USGS and KCWA (Page, 1986; and KCWA, 2018), groundwater generally flows westward from the Sierra Nevada and Kern River. Groundwater flows from natural and managed recharge points along the Kern River, which is situated on the Bakersfield Arch and has a broad topographical rise that gradually dips to the north and south of the river; thus, the rough alignment of the river effectively splits the Subbasin into Northern and Southern groundwater flow regimes. To the North of the river, groundwater flows from the uplands along the east margins of the Subbasin toward the west and northwest until it leaves the Subbasin as subsurface underflow or is captured by pumping wells for irrigation or potable consumption. Figure 2-18 below presents the approximate location of the San Joaquin Valley (Buttonwillow) Syncline. The syncline likely negates the potential flow of saline connate water of the westside from significantly impacting groundwater in the main production zone of the Subbasin.

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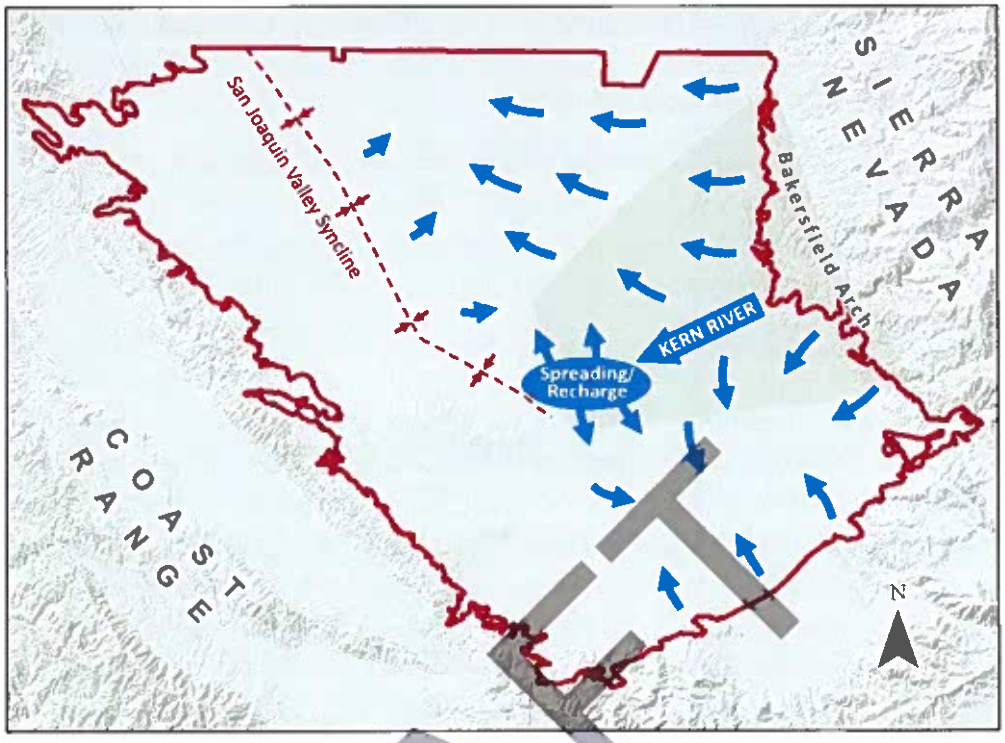


Figure 2-1: Generalized Groundwater Flow in Kern County Subbasin

As observed in cross sections Figure 2-10 and Figure 2-11, the seismic form correlations confirm the general flow direction of groundwater and the general topographic high of the Bakersfield Arch with bedding gradually dipping northerly on the northside of the Arch, and southerly on the south side of the Arch. Cross sections also depict some of the highs of the anticlines and the low of the Buttonwillow Syncline. In general, groundwater elevations near the river tend to respond to flow in the river channel and the management of groundwater banking projects located near the river, whereas, groundwater elevations further away from the river show more pronounced seasonal responses from pumping and recharge.

The following sections include the discussion of groundwater elevation contours, hydrographs, and other details to present the historical and current groundwater conditions within SSJMUD.

2.3.1.1 Elevation and Flow Directions (Groundwater Contour Map for Each Principal Aquifer)

Groundwater elevation contour maps were prepared for Spring 2015 (seasonal high) (Figure 2-19) as well as Fall 2015 (seasonal low) (Figure 2-20) to provide relatively current groundwater flow trends across the Subbasin since the inception of SGMA. Groundwater contour maps were prepared for the main production zone. In general, flows

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were consistent with historical trends, with groundwater flowing from the uplands on the east and around Poso Fan, and from the south along Kern River Fan along the natural flow direction to the northwest and toward pumping well discharge points. Groundwater elevations during Spring 2015 from less than minus 100 ft msl on the west to greater than 150 ft msl on the southeast. Groundwater elevation data for the Fall 2015 were limited in availability due to the high demand for pumping; therefore, the data range is incomplete and represents only a partial dataset; however, general groundwater flow trends are consistent with historical trends. Groundwater elevation data for the Fall 2015 in the main production zone of the aquifer system ranged from less than minus 150 ft msl to greater than 100 ft msl. In addition to recent mapping, the KCWA historical maps are provided in Appendix F.

2.3.1.2 Hydrographs

Hydrographs provided in Appendix G present groundwater elevations versus time with corresponding water years. In general, groundwater levels decline during dry years and increase during wet years based on the availability of imported surface water supplies. As a reference for recent surface supply water years, the below Table 2-3 presents the water year indexes from 1995 to 2017 for both the Sacramento Valley Index (typically representative of the State Water Project (SWP) allocations), and the San Joaquin Valley Index (typically representative of the FKC allocations). The 23-year period (1995-2017) started with six years of wet to above-normal years followed by 12 of the final 17 years as below normal to critically dry years. The implementation of SGMA (2015) began with critically-dry and dry years midway through a historic 5-year drought period.

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Table 2-3: Water Year Types

Water Year	Sacramento Valley	San Joaquin Valley
1995	Wet	Wet
1996	Wet	Wet
1997	Wet	Wet
1998	Wet	Wet
1999	Wet	Above Normal
2000	Above Normal	Above Normal
2001	Dry	Dry
2002	Dry	Dry
2003	Above Normal	Below Normal
2004	Below Normal	Dry
2005	Above Normal	Wet
2006	Wet	Wet
2007	Dry	Critical
2008	Critical	Critical
2009	Dry	Below Normal
2010	Below Normal	Above Normal
2011	Wet	Wet
2012	Below Normal	Dry
2013	Dry	Critical
2014	Critical	Critical
2015	Critical	Critical
2016	Below Normal	Dry
2017	Wet	Wet

Source: http://cdec.water.ca.gov/reportapp/javareports?name=WSIHIST

A complete set of hydrographs for data in the data management system (DMS) is contained in Appendix G. A select group of representative hydrographs with a summary table of well data are included in the Appendix G and are discussed below. These representative hydrographs were selected from CASGEM, neighboring district-owned supply wells, and private wells that are made available for SSJMUD water level monitoring.

Group 1. T26S-R26E and T27S-R26E:

Hydrographs represent wells in the southern portion of the study area just northwest of Poso Creek. The magnitude in seasonal drawdown and rise and fall of water levels between wet and dry years indicate is fairly small compared with Group 2. Potentially indicating that Group 1 wells are closer to natural recharge along the Kern and Poso Fans.

Group 2. T25S-R24E to T26S-R26E:

Hydrographs represent wells in central SSJMUD. The magnitude in seasonal drawdown and rise and fall of water levels is larger than Group 1, because it is further downgradient from natural recharge, appears to exhibit more semi-confinement which is consistent with the presence of the Corcoran Clay near these wells and possibly due to greater amounts

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of fine-grained units in the subsurface as indicated in historical cross sections from USBR, 1948).

Group 3. T24S-R26E and T25S-R26E:

Hydrographs in the north-central area of SSJMUD exhibit less seasonal drawdown in some wells and a smaller response in water level change between dry years and wet years. These trends may indicate more unconfined conditions. Water level elevations are higher in Group 3 than in Groups 1 and 2.

Overall, for all areas of SSJMUD, water levels are declining in dry years, and stabilizing or increasing in wet years.

2.3.2 Change in Groundwater Storage

Change in groundwater storage is estimated in the KGA GSP Basin Setting. Included with the description are graphs of the change in groundwater storage over the study period of 1995 through 2015.

Historical changes in groundwater elevation maps for SSJMUD are documented in Appendix F. As observed with the change in elevation maps and hydrographs, groundwater storage is reduced during "dry" water years when imported surface water deliveries are limited, resulting in greater reliance on pumping groundwater to meet water demands.

2.3.3 Seawater Intrusion

Seawater intrusion is not applicable to Subbasin. The Coast Range are a barrier to groundwater flow that separates seawater from the Subbasin.

2.3.4 Groundwater Quality

The purpose of this groundwater quality section is to discuss groundwater quality issues that may affect the supply and beneficial uses of groundwater as stated under CCR §354.16. This section includes a discussion of water quality standards used and information relevant to capturing the groundwater quality in SSJMUD boundaries.

Public Water Systems

While land use within SSJMUD is predominately agricultural, there are 18 public water systems that are located within the District's service area identified through the Groundwater Ambient Monitoring and Assessment Program (GAMA). Six of these water systems are classified as community water systems, meaning that there are at least 15 service connections, or 25 year-round residents are served. The remaining public water systems are either Non-Transient Non-Community (NTNC) or Transient Non-Community water systems (TNC). These classifications are generally designated for businesses who supply water to their employees, or a transient (pass through) population.

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Table 2-4 lists the public water systems with a brief description, classification and estimated population served. Figure 2-21 shows where they are located within SSJMUD boundaries.

Water quality data from regulated drinking water systems is available through the State Drinking Water Information System (SDWIS). NTNC water systems are required to test for most regulated constituents at least once every 3 years. TNC have reduced monitoring requirements and typically only test for nitrate and bacteria on a regular basis.

Table 2-4: Public Water Systems within SSJMUD

Water System #	Water System Name	Type	Population Served	Service Area	Number of Wells
1500518	Agbayani Village Water System	C	NT=12; R=26	Residential	1
5400810	Akal Travel Plaza	NC	200	Restaurant	1
5403022	Aptco, LLC	NTNC	150	Industrial/ Agricultural	1
1510013	City of McFarland	C	15,105	Residential	3
1510005	City of Delano	C	56,623	Residential	13
1503623	Jakov Dulcich & Sons Water System	NC	40	Industrial/ Agricultural	1
1504002	Jasmine Vineyards	NC	NT=6; T=75	Other Transient	1
1504007	Jasmine Vineyards Cold Storage	NTNC	27	Other Transient	1
1502319	Kern Co P&R – Lake Woollomes Water System	NC	R=1; T=400	Recreation	1
1510802	Kern Valley State Prison	C	5,300	Institution	2
1503653	M & L Cold Storage, LLC	NTNC	50	Industrial/ Agricultural	1
1504005	M & L Office	NTNC	113	Other Non-Transient	1
1503374	Marko Zaninovich, Inc – Pond	NTNC	30	Industrial/ Agricultural	1
5402041	Penny Wise Motel	NC	27	Hotel	1
1502620	Pond Mutual	C	48	Residential	1
1502221	Pond School Water System	NTNC	250	School	1
5400964	Sierra Vista Assn	C	44	Residential	1
1502581	Sunview Cold Storage Water System	NTNC	130	Industrial/ Agricultural	1

C = Community water system
NTNC = Nontransient non-community water system
TNC = Transient non-community water system
NT = Nontransient
T = Transient
R = Residential

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Existing Water Quality Monitoring Programs

SSJMUD does not own any wells within their district. Therefore, there is no direct monitoring of groundwater quality within their service area. This evaluation was conducted using public water system data.

Domestic Wells

Domestic wells are used exclusively to supply general household needs of the property owner and are typically constructed to a shallower depth than municipal or agricultural wells. Therefore, domestic wells are more commonly impacted by surface contaminants leaching into the groundwater.

Currently, information about domestic wells is limited. There is an effort being led by the SWRCB, as well as multiple other agencies, to explore the best sources of information and conduct a Needs Assessment of domestic wells in contaminated groundwater basins. An effort that is specific to SSJMUD is being conducted by the Tulare Kern Funding Area Disadvantaged Community Involvement Program that anticipates its study will be completed by the end of 2019. This study is seeking to quantify the number of domestic wells in the funding area. These studies will also gather information on the disadvantaged communities (DAC) and domestic well owners and explore potential remedies for contaminated wells.

Water Quality Standards

Federal and State Drinking Water Standards are predominantly referenced when discussing water quality standards. However, the predominant use of land in SSJMUD is for agricultural purposes. For this reason, the agricultural Water Quality Goals (Ag Goals) will also be referenced for evaluation of groundwater quality in this area. The most applicable standard, Drinking Water Standard or Ag goals will be used as a reference point when discussing each constituent.

Water quality constituents that have the potential to impact the groundwater quality of SSJMUD are: arsenic, hexavalent chromium, nitrate, chloride, sodium, boron, 1,2,3-trichloropropane (TCP) and dibromochloropropane (DBCP). The list of these constituents along with their corresponding standards are listed in Table 2-5. In the Subbasin, arsenic, hexavalent chromium, and boron are predominately naturally occurring. Constituents related to salinity - chloride and sodium - are also naturally occurring but concentrated by surface activities. Nitrate is predominately anthropogenic. DBCP and TCP are manmade chemicals and are completely anthropogenic.

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Table 2-5: List of Constituents and Standards

Constituent	Units*	Drinking Water Standard	Agricultural Water Quality Goal
Arsenic	ppb	10	100
Boron	ppb	1,000	700
Chloride	ppm	250	106
Dibromochloropropane (DBCP)	ppt	2	n/a
Hexavalent Chromium	ppb	n/a	n/a
Nitrate	ppm	10	n/a
Sodium	ppm	n/a	69
1,2,3-Trichloropropane (TCP)	ppt	5	n/a

*ppt = parts per trillion
ppb = parts per billion
ppm = parts per million

Land Use

Multiple sources were used to determine the land and crop land uses within SSJMUD. Ideally one single source would be used; however, none of the single sources cover the entire extent of Kern County. Using the combination of sources, land use for the entire county is accounted for. The sources that were used in priority order are: 2014 data from Land IQ, 2016 Kern County Data from Department of Agriculture and Measurement Standards, and 2006 data from Department of Water Resources (DWR).

Land IQ was contracted by DWR to assist in obtaining land use data. In addition, Land IQ works in partnership with many other water districts within Kern County and uses satellite data to obtain the land and crop records. Given that water districts have worked closely with Land IQ to develop the data, this dataset was given the highest priority of the three sources to develop the land and crop land uses within SSJMUD.

Data from Land IQ also covers much of the crop land in the county and it was determined that crop patterns have been consistent within the last ten years. 2016 Kern County data was then used to fill in any spatial gaps of missing data from Land IQ. The last source, 2006 DWR data, was used to fill in any missing gaps from the two other sources. Despite DWR data being older than Land IQ and Kern County data, much of the missing land data filled by DWR are generally riparian and native vegetation land. Geographic Information System software (GIS) was used to merge shapefiles from all three data sources together.

When evaluating water quality, it is important to know what the land uses are in the area. Often, the land use activities may impact the groundwater quality. SSJMUD has a

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combined land acreage of 64,711.66. Of the total land within SSJMUD, about 81 percent is dedicated to agricultural land. From the agricultural land data, about 91 percent of it was determined from the use of Land IQ data, 4 percent from Kern County data, and 5 percent from DWR data. The next largest percentage of land use within both districts is urban at about 8 percent. Urban land use is predominately located in the central and north central portions of the District. Table 2-6 provides a breakdown of these land uses within SSJMUD. Figure 2-22 shows the land use distribution.

Table 2-6: Land Uses within SSJMUD

Land Use	Acres	Percentage (%)
Agriculture	52,527.02	81.17
Industrial	516.71	0.80
Commercial	665.16	1.03
Native Vegetation	3,612.65	5.58
Urban	5,388.70	8.33
Urban Landscape	19.80	0.03
Residential	282.65	0.44
Vacant	818.58	1.26
Surface Water	880.39	1.36
Total	64,711.66	100

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Data Used

Public Water System Wells

Public water systems were identified through GAMA and water quality data was extracted from SDWIS. Since most of the water systems identified are businesses, monitoring requirements are sometimes less extensive than municipalities serving residential communities. Consequently, there are some water systems with no data or only one result available for the identified constituents of concern in this region. Since SSJMUD does not own any groundwater wells and water quality data was not available, municipal well data was used for representation. Of the 18 public water systems identified, 33 wells were evaluated, and water quality data was trended from 2008 to current. In addition to the water quality data, the cities of Delano and McFarland provided well construction details.

Water level data and well construction details were not available for public supply wells, which has been challenging in determining where wells are perforated within the aquifer. This information is helpful for understanding what the water quality trends mean in relation to the aquifer. Water level data is also of value to determine if water quality trends are related to fluctuation in wet and dry water years. When examining the data, depths where constituents are more prevalent in the aquifer should be considered. Knowing this can help determine if water levels and well construction have an impact on water quality conditions.

Water Quality Evaluation

Groundwater conditions in SSJMUD was conducting using public water system data. All available water quality data was evaluated to identify constituents of concern, as identified in Table 2-5. Not all constituents that are commonly found in the Subbasin are found at concerning concentrations in SSJMUD. Therefore, only TCP, arsenic, chloride, and sodium are addressed as constituents of concern.

Sodium and Chloride

Since land use within SSJMUD is predominately agricultural, the State Water Board's Ag goals are referenced as the appropriate value rather than drinking water standards. Sodium and chloride have an Ag goal of 69 and 106 ppm, respectively. Drinking water does not apply a limit for sodium. The recommended limit for chloride is 250 ppm and the upper limit is 500 ppm.

Ag goals were published by the Food and Agriculture Organization of the United Nations in 1985. The criteria are protective of various agricultural uses of water, including irrigation of various types of crops and stock watering. At or below the thresholds presented in the Water Quality Goals database, agricultural uses of water should not be limited.

Both sodium and chloride show similar trends in the wells evaluated; therefore, for this discussion, they will be collectively referred to as salinity levels. Since sodium concentrations is an important measurement to crop yield, the focus of salinity level discussion will be on sodium. Table 2-7 summarizes sodium concentrations and their relationship to well perforations.

Table 2-7: Summary of Sodium Prevalence among Public Water Systems

Water System	Sodium Concentrations		
	0-34 ppm	35-69 ppm	>70 ppm
Agbayani Village Water System			1
Akal Travel Plaza			1
Aptco, LLC			1
City of Delano	1	5	7
City of McFarland		2	1
Jakov Dulcich & Sons Water System			1
Jasmine Vineyards		1	
Jasmine Vineyards Cold Storage			1
Kern Co P&R-Lake Woolomes Water System	1		
Kern Valley State Prison			2
M & L Cold Storage, LLC Water			1
M & L Office			1
Marko Zaninovich, Inc. – Pond			1
Penny Wise Motel			1
Pond Mutual		1	
Pond School Water System		1	
Sierra Vista Assn			1
Sunview Cold Storage Water System			1

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Water System	Sodium Concentrations		
	0-34 ppm	35-69 ppm	>70 ppm
Total Wells	2	10	21

When compared against Ag goals, data indicates that there are 12 wells with no trends available. Only one sodium result was available for those wells. For the remaining wells, no discernable trends were observed. Wells with elevated sodium levels were located throughout the District's service area. More data such as well construction information will be necessary to determine if elevated sodium areas are in a certain part of the aquifer. If sodium levels continue to increase, this will cause an adverse effect on the Ag industry due to sodium hazard concern to crops mentioned earlier.

TCP

TCP is a newly regulated synthetic organic chemical. The State Water Board reports that contamination in the Central Valley is predominately from legacy pesticide applications of certain soil fumigants. The drinking water MCL is 5 ppt; there is no Ag goal.

While TCP contamination is widespread throughout the Subbasin, there appears to be less occurrence where the Corcoran Clay is present. Detections in SSJMUD are relatively intermittent and appear to only occur above the 5 ppt detections limit when wells are perforated in the upper aquifer, or when a nearby wells is serving as a conduit between the upper and lower aquifers.

Of the public supply wells tested, 36 percent of the wells have detections above the MCL of 5 ppt. Table 2-8 shows the water systems and the number of wells that are impacted by TCP. Noncommunity water systems are not required to monitor for TCP. There are four of these water systems, which are identified in Table 2-8 with no data. The table confirms that TCP is a contaminant of concern for SSJMUD given that 36 percent of the wells in the region exceed the MCL.

Table 2-8: Summary of TCP Prevalence among Public Water Systems

Water System	TCP Concentrations		
	Non-Detect	>5 ppt	No Data
Agbayani Village Water System	1		
Akal Travel Plaza			1
Aptco, LLC	1		
City of Delano	7	6	
City of McFarland	1	2	
Jakov Dulcich & Sons Water System		1	
Jasmine Vineyards			1
Jasmine Vineyards Cold Storage	1		
Kern Co P&R-Lake Woolomes Water System			1
Kern Valley State Prison	2		
M & L Cold Storage, LLC Water		1	
M & L Office	1		
Marko Zaninovich, Inc. – Pond	1		
Penny Wise Motel			1

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Water System	TCP Concentrations		
	Non-Detect	>5 ppt	No Data
Pond Mutual	1		
Pond School Water System	1		
Sierra Vista Assn		1	
Sunview Cold Storage Water System		1	
Total Wells	17	12	4

Arsenic

In terms of drinking water quality, arsenic is the primary contaminant of concern in SSJMUD. There is a primary drinking water standard of 10 ppb for arsenic. The Ag goal is 100 ppb. All water quality data in SSJMUD indicates that arsenic is below the Ag goal.

The most common source of arsenic is from natural geochemical processes that leach metals from the sediments, particularly in the lakebed areas and where dark clay deposits occur. Studies conducted by USGS found that arsenic is in an easily exchangeable state where oxidizing geochemical conditions, caused by groundwater containing higher oxygen content, dissolve the pyrite (a mineral which can contain arsenic) and release arsenic into the groundwater. Smith et. al. (2018) found that over-pumping in the San Joaquin Valley has led to land subsidence due to compaction of the lakebed deposits (clay layers) that then releases the high arsenic pore water from the clay layers into the groundwater. In SSJMUD, the Corcoran Clay is in the northwest portion of the District.

About 33 percent of the wells evaluated exceed the drinking water limit. Elevated arsenic levels are predominately located in the confined aquifer, which is in the north east portion of the District. Tables 2-9 shows the number of municipal wells within the District and their respective arsenic concentration levels.

Table 2-9:Summary of Arsenic Prevalence among Public Water Systems

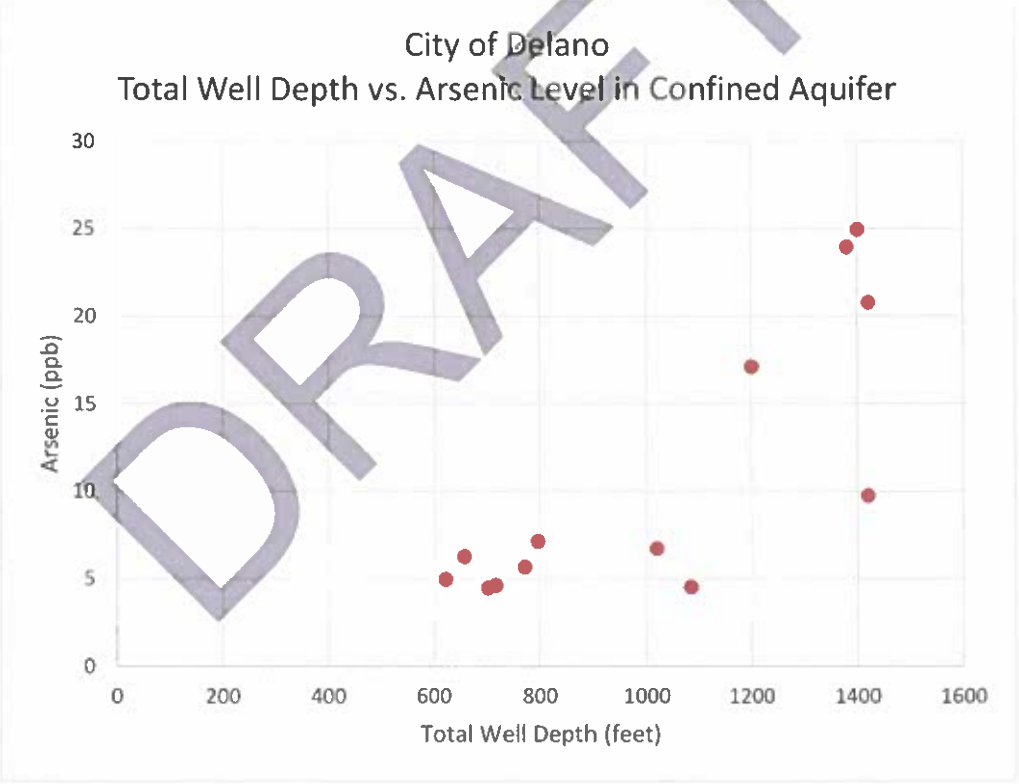
Water System	Arsenic Concentrations			
	<5 ppb	6-10 ppb	>11 ppb	No Data
Agbayani Village Water System		1		
Akal Travel Plaza	1			
Aptco, LLC	1			
City of Delano	3	5	5	
City of McFarland	1	2		
Jakov Dulcich & Sons Water System				1
Jasmine Vineyards	1			
Jasmine Vineyards Cold Storage		1		
Kern Co P&R-Lake Woolomes Water System	1			
Kern Valley State Prison			2	
M & L Cold Storage, LLC Water		1		
M & L Office			1	
Marko Zaninovich, Inc. – Pond	1			
Penny Wise Motel				1
Pond Mutual			1	
Pond School Water System			1	
Sierra Vista Assn			1	

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Water System	Arsenic Concentrations			
	<5 ppb	6-10 ppb	>11 ppb	No Data
Sunview Cold Storage Water System	1			
Total Wells	11	9	11	2

Because arsenic is believed to be naturally occurring in the Subbasin and leaching from dark clay deposits is the local sources of contamination, arsenic concentrations greater than 10 ppb are most commonly found in wells that are screened across pyrite sediments. Higher concentrations are generally found in very deep wells.

When comparing arsenic levels to a well's depth, there was an observed trend. For wells in the City of Delano, which are within the Corcoran Clay, wells at 1,200 feet or greater are above the arsenic MCL compared to shallower wells. Figure 2-23 shows this observation, which coincides with studies conducted in the Subbasin that arsenic concentrations tend to be elevated in the deeper part of the aquifer.



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Figure 2-2: City of Delano - Relationship between Total Well Depth and Arsenic Levels

Even though a similar trend of deeper wells having elevated arsenic levels is seen outside of the Corcoran Clay, there was not enough data at the time of evaluation to conclude that arsenic is not generally found in the shallow aquifer. Well construction details are necessary to make this determination. This similar trend of elevated arsenic levels in deeper wells was noted in City of McFarland wells, which are east of the Corcoran Clay.

Figure 2-24 shows that with deeper wells, arsenic levels are elevated. Even though the arsenic levels do not exceed the MCL like the wells within the Corcoran Clay, it is observed that the arsenic levels in the deeper wells are higher compared to shallower wells. The deeper wells also have lower screened intervals, therefore are drawing water from the deeper part of the aquifer where there is less dilution. For the wells within the City of McFarland, wells deeper than 1,200 feet have higher arsenic levels compared to shallower wells, which is similar to City of Delano.

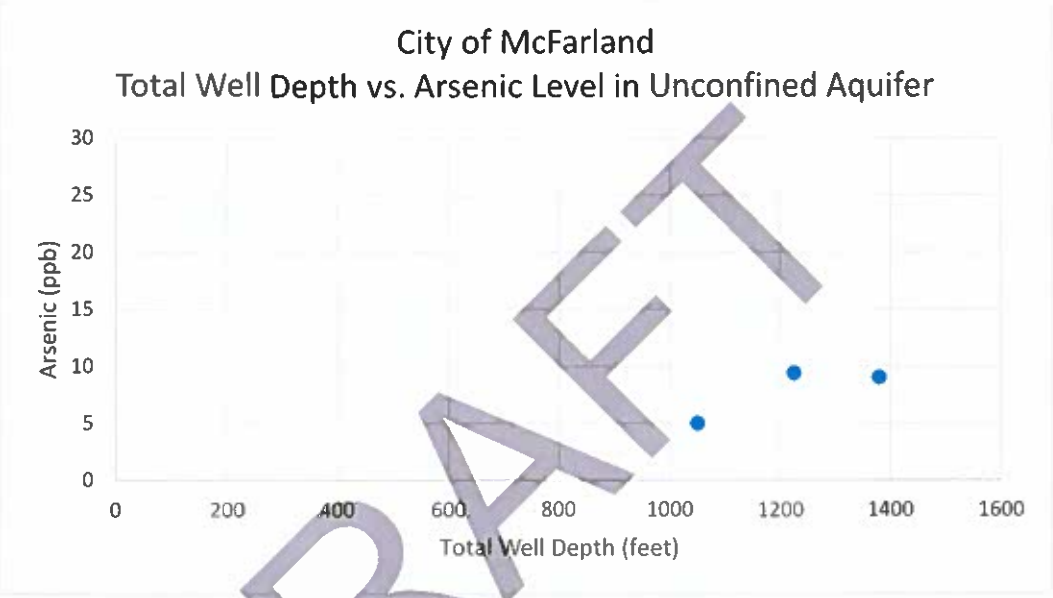


Figure 2-3: City of McFarland - Relationship between Total Well Depth and Arsenic Levels

No discernable trends were observed when comparing arsenic levels to water levels. When analyzing the wells together, there was no clear relationship. However, when looking at some wells individually, certain relationships were observed. Since the correlation was not consistent for most of the wells, no discernable trend can be stated.

Nitrate

Nitrate contamination is a significant concern in rural communities, particularly where agriculture is the predominant land use. However, a significant source of nitrate also comes from septic systems that are used in these rural communities. Since municipal services (drinking water or wastewater collection systems) are not available in SSJMUD, all domestic and public wastewater disposal is through onsite septic systems.

Even though nitrate is not a concern in terms of the percentage of wells with elevated levels, more data is necessary to determine if there are observable trends. Nitrate can be naturally present at low concentrations in groundwater, typically less than 2 ppm. Moderate and high concentrations generally occur because of human activities. Septic

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systems typically contribute moderate concentrations between 5 and 15 ppm of nitrate as nitrogen. Typically, higher concentrations (greater than 20 ppm) are associated with applying fertilizers to crops. Nitrate contamination is a significant public health concern because it has acute health effects. High concentrations of nitrate are typically found in shallow groundwater, such as those in the unconfined aquifer. About 24 percent of the municipal wells exceed the drinking water MCL for nitrate. Table 2-10 shows the number of wells at different concentration levels.

Table 2-10: Summary of Nitrate Prevalence among Public Water Systems

Water System	Nitrate Concentrations		
	0-5 ppm	6-10 ppm	>11 ppm
Agbayani Village Water System		1	
Akal Travel Plaza			1
Aptco LLC			1
City of Delano	8	4	1
City of McFarland	2	1	
Jakov Dulcich & Sons Water System			1
Jasmine Vineyards	1		
Jasmine Vineyards Cold Storage	1		
Kern Co P&R-Lake Woolomes Water System	1		
Kern Valley State Prison	2		
M & L Cold Storage, LLC Water			1
M & L Office	1		
Marko Zaninovich, Inc. – Pond		1	
Penny Wise Motel			1
Pond Mutual	1		
Pond School Water System	1		
Sierra Vista Assn			1
Sunview Cold Storage Water System			1
Total Wells	18	7	8

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The location of elevated nitrate concentrations tends to be in rural areas where municipal services are not available. Despite most of the land use being agricultural, there are rural communities as well. As previously mentioned, since there are no municipal services, these communities rely on septic systems to manage their wastewater. Septic tanks are known to have failures such as leakage and are not as well maintained as a municipal sewer system. The failing septic tanks leak contaminants, such as nitrate, which eventually enter the groundwater. This is especially concerning if there is a groundwater well downgradient of the septic tank. Elevated nitrate levels in a groundwater well is typically due to surface contamination and have been more prevalent in shallower wells or in areas where a confined aquifer is not present. To better understand the nitrate trends, more data such as well construction information would be beneficial.

Contamination Plumes

A search of contamination plumes within SSJMUD was conducted using both GeoTracker and EnviroStor databases. The criteria outlined in the KGA GSP Basin

Setting was applied during this review. Based on the criteria, five facilities in Pond and Delano, were identified and are being overseen by the Central Valley Regional Water Quality Control Board and Department of Toxic Substances. Table 2-11 identifies the facilities and the potential contaminants of concern. Other sites were acknowledged, but no nearby impacted wells or municipal wells within 1,500 feet of those sites were identified. Since there are no nearby affected wells and remediation efforts have begun, those sites are not impacting the groundwater quality, therefore not presented in Table 2-11.

Table 2-11: Contamination Sites within SSJMUD

Global ID#	Potential Contaminants of Concern	Status
T0602900113	Gasoline	Open – Remediation as of 7/6/16
SL185724257	Pesticides, other chlorinated hydrocarbons, TCP, synthetic organic carbons, other solvent, Nitrate+Nitrite as N	Open – Verification monitoring as of 4/20/10
60001327	Tetrachloroethylene (PCE)	Active as of 8/4/10
60002270	Tetrachloroethylene (PCE)	Associated with 60001327
60002268	Tetrachloroethylene (PCE)	Associated with 60001327
60002269	Tetrachloroethylene (PCE)	Associated with 60001327

The main contamination plume to be concerned with is the city-wide PCE plume in Delano. There are three dry cleaners that have been identified so far. Three City of Delano wells were within 225 feet of the plume and were destroyed in July 1995. City of Delano Well 22 is the closest active well to the plume; however, none of the city's wells have had any PCE detections so far. It is unknown if there are any other domestic wells within the plume. PCE has been detected as high as 420 ppb in one of the monitoring wells near the site. Groundwater samples have been collected between 105 to 250 feet below ground surface and levels have generally decreased with depth, except for one sample. Studies conducted so far at this site show that PCE is generally not detected above reporting limits at depths greater than 230 feet below ground surface or in samples collected more than a quarter mile downgradient of the potential source area. A Geosyntec report dated August 8, 2018 indicates that the Corcoran Clay is approximately 250 feet below ground at the site and believes that PCE, if present in a dense non-aqueous phase, would sink in groundwater but not below the clay. This still needs to be confirmed since a lower confining unit has not been encountered yet. Investigative work is still in progress and includes further groundwater investigation work and more monitoring well installations to better define the lateral and vertical limits of the plume. Figure 2-25 shows the locations of these contamination sites.

Groundwater Quality Findings

Based on data evaluated in this groundwater characterization, sodium is the primary constituent of concern for SSJMUD. Salinity is strictly an agricultural concern and arsenic is strictly a drinking water concern. All other constituents that were evaluated are not as great of concern since the concentrations and overall impact to this region are low.

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Overall, sodium is of great concern for the District. 64 percent of the municipal wells are over the sodium Ag limit. Since the land use in SSJMUD is about 81 percent agricultural, the focus of the water quality evaluation for salinity, was sodium due to its impact the agricultural industry. High sodium levels pose a sodium hazard to crops. Sodium levels were observed to be elevated throughout the District. Management actions will need to be established to limit the impact to the agricultural industry from increasing sodium levels.

Following sodium, TCP and arsenic are of concern. TCP was elevated in about 36 percent of the municipal wells within the District. Elevated TCP wells are located throughout the District's service area. Arsenic was elevated in about 33 percent of the wells. High arsenic wells are predominately located in the northwestern portion of the District's service area where the Corcoran Clay is present. For wells within the Corcoran Clay, it was observed that wells deeper than 1,200' had arsenic levels at or above the MCL. This same trend was observed for wells outside the clay.

Overall, nitrate was not seen as a concern. About 24 percent of the wells exceeded the MCL. Since nitrate is a surface contaminant, it is expected for wells with shallow screened intervals or annular seals to typically show the highest levels of contamination. More data, such as well construction information will be valuable to determine if there are any trends observed. To comply with the Human Right to Water, nitrate levels will need to be closely monitored and management actions will need to be in place to comply with the nitrate drinking water standard.

Contamination plumes were identified using the GeoTracker and EnviroStor databases. Of the plumes identified, the main one of concern to the District is the city-wide plume in Delano. So far, no drinking water wells have been impacted. However, much work still needs to be completed to determine the extent of the plume, both laterally and vertically.

From this water quality evaluation, sodium, TCP, and arsenic are the constituents of concern for SSJMUD's service area. These constituents will impact both the agriculture industry and public health. More information such as well construction information and water level data are necessary to determine if there are any relationships with constituent levels. All other constituents that were evaluated are not as great of a concern since the concentrations and overall impact to this region are low. Public health related constituents, TCP and arsenic already has an impact to public water systems that are already exceeding the respective MCLs but unable to provide treatment for the wells. There are disadvantaged communities among the District and it is anticipated that the Needs Assessment study will capture the domestic wells within Kern County to better understand the water quality impacts to these communities. If sodium levels continue to elevate or become more prominent in the area, it will become detrimental to the agricultural industry. This can greatly impact this industry since it is one of the primary economic livelihoods for the county.

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2.3.5 Land Subsidence

As described in the KGA GSP Basin Setting, inelastic (irrecoverable) land subsidence (subsidence) is a potential concern in areas of active groundwater extraction with underlying fine-grained sediment, such as in the study area. Increased potential for Undesirable Results may occur due to subsidence. Undesirable Results of subsidence may include, but are not limited to, flood risk in low lying areas; well casing damage or collapse; canal and infrastructure damage or collapse; and reduced groundwater storage (LSCE, 2014).

According to DWR (2014), the Kern County Subbasin was rated at a high potential for future subsidence, due to 1) most of the wells monitored with water levels at or below historical lows; 2) documented historical subsidence; and 3) documented current subsidence. Moreover, greater amounts of subsidence are occurring to the north of Kern County boundaries in the Tulare Subbasin. The amount of future subsidence will depend on whether future water levels decline below previous low levels and remain low for a considerable amount of time. Maintaining water levels above the previous low water levels may limit the risk of future subsidence.

Several processes contribute to subsidence in the Subbasin and include, in order of decreasing magnitude: aquifer compaction by overdraft, hydro compaction (shallow or near-surface subsidence) of moisture deficient deposits above the water table that are wetted for the first time since deposition, petroleum reservoir compaction due to oil and gas withdrawal, and subsidence caused by tectonic forces (Ireland et al., 1984) (Appendix H).

Inelastic compaction (subsidence) typically occurs in the fine-grained beds of aquifers and in the aquitards. The fine-grained beds contain water in the pore spaces between the clay particles at the time of deposition and this water supports the clay particles which contributes to the thickness of the fine-grained bed. During dry conditions when surface water supplies are diminished, over-pumping of groundwater may cause a one-time release of water from the clay (dewatering). This one-time release is also referred to as the inelastic skeletal specific storage of clay. Once the clays dewater, the volume released from inelastic storage results in permanent realignment of the clay particles and the collapse of the clay layer structure, or permanent land subsidence. Although space within the overall aquifer is reduced by an amount equivalent to subsidence of the land surface (due to reduced thickness of the clay layers), this storage reduction does not substantially decrease usable storage for groundwater in the aquifer because the clay layers do not typically store significant amounts of recoverable, usable groundwater (LSCE, 2014) (Appendix H). However, Ojha et. al. (2019), references recent studies suggesting that subsidence between 2007-2015 in the Central Valley (primarily San Joaquin Valley) resulted in losses of 0.4% to 5.25% storage capacity in the aquifer system. Although much this capacity mostly represents fine grained layers, this loss may impact the overall

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aquifer system by increasing the replenishment time of the aquifer which could pose further challenges to water management (Ojha et. al., 2019).

The one-time release of water compaction has been substantial in some areas of the Central Valley; and it is estimated that by the mid-1970s, about one-third of the volume of water pumped from storage in areas such as Los Banos-Kettleman City, came from compaction of fine-grained beds (Poland et al, 1975; Faunt et al, 2009); therefore, water budget projections may need to consider the one-time release of water from compaction as an irrecoverable water source for future projections. Although the largest body of fine-grained beds is the Corcoran Clay, a relatively insignificant volume of water has been released from storage in the Corcoran Clay (Faunt et al, 2009). However, aquifer water quality could be impacted by poor quality water released from the dewatering of clays, as postulated for an increase in arsenic (Smith et. al, 2018). The surface displacement of subsidence represents the reduced thickness of the impacted clay layers and this vertical displacement, if significant enough, may cause damage to wells and structures.

Groundwater overdraft is considered to be the primary driver of historical land subsidence in the Central Valley (Faunt et. al., 2009). USGS estimates that about 75 percent of the subsidence occurred in the 1950s and 1960s, corresponding to extensive groundwater development (Galloway, et al., 1999), prior to implementation of the SWP, CVP, and other development of surface water resources.

2.3.5.1 Subsidence Results and Methodology in the Study Area.

Results of subsidence estimates are summarized in the Table 2-12 below and on Figure 2-26 through Figure 2-30. In addition, time-series charts of subsidence are provided in Appendix H. Results were compiled from historical leveling surveys, recent GPS data, extensometer data, and satellite- and aircraft-based remote sensing.

Historical Results

Within the study area, historical subsidence has been documented from leveling surveys by the National Geodetic Survey at up to 6.5 feet from 1926 to 1970 (Ireland et al., 1984). Compaction data by the extensometers were plotted against the DWR water year indices. Greater rates of compaction generally correlated with low water year indices (critical, dry, or below normal) while compaction rates were lower during high water year indices (wet, and above normal).

In general, Figure 2-26 shows that centers of historical subsidence occurred northeast of SSJMUD and propagated outward to the south into SSJMUD.

CGPS

Recent subsidence studies of the Central Valley, and the Kern County Subbasin have utilized continuous GPS (CGPS) station data. The following CGPS stations are located in or near the study area: P544 (Twisselman Road), P545 (Lerdo Highway), P563

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(Buttonwillow Rest Area), P564 (Wasco), and P565 (Delano), respectively located west of SWSD along I-5 and Twisselman Road, southwest of SWSD (along I-5 just north of Lerdo Highway), south of SWSD along I-5 at the Buttonwillow Rest Area, within SWID at Wasco Airport, and to the north of NKWSD at Delano Municipal Airport. These CGPS stations are monitored as a part of Unmanned Aerial Vehicle Synthetic Aperture Radar's (UNAVCO) Plate Boundary Observation (PBO). Day-to-day CGPS height solutions vary by as much as about 35 mm, likely due to variable atmospheric conditions, random walk noise, and other effects not directly related to land-surface-elevation change (Zerbini and others, 2001; Williams and others, 2004; Langbein, 2008) and, for this reason, short-term day-to-day comparisons of CGPS data to characterize land subsidence in the Central Valley is not ideal. Based on the time-series charts in Appendix H, CGPS data are more meaningful in characterizing land subsidence when looking at quarterly and annual trends. Therefore, cumulative subsidence and rates of subsidence were calculated by taking averages of the dataset for each water year. Note: For CGPS data plotted with InSAR data (Figure 2-27 through Figure 2-30), cumulative subsidence and rates were by daily averages.

In general, CGPS data show subsidence in the SSJMUD region with relatively modest declines (P544, P545, P563) and much higher decline (P564 and P565) in Wasco and Delano.

Ojha et. al. (2019) incorporated many of these CGPS points in a regional Central Valley-wide study of subsidence and were able to estimate skeletal storage of the aquifer system at CGPS points in the Valley. This skeletal storage could then be used to estimate the loss in storage of the aquifer based on CGPS subsidence estimates. Ojha et. al (2019) found that elastic subsidence recovered after 10 to 20 months from when groundwater levels begin to recover.

Extensometer

Semitropic currently maintains an extensometer (25S/22E-35B001) for monitoring compaction in the subsurface. This extensometer was completed to a depth of 900 feet below ground surface in 2006. The benefit of an extensometer over other datasets such as CGPS or Interferometric Synthetic Aperture Radar (InSAR), is that an extensometer measures a discrete subsurface interval, or typically the interval of the ground surface to the total depth of the extensometer. On the other hand, CGPS and InSAR monitor overall change in ground surface relative to a datum such as sea level, regardless of the depth interval. Moreover, InSAR provides information over a wide area.

Ideally, an extensometer should be installed below the base of the compacting aquifer system (Galloway et. al, 1999), to monitor the entire compaction zone. Although Page's base of freshwater and nearby supply wells to the southeast suggest the lower aquifer zone extends below the extensometer, the upper 900 feet that the extensometer monitors is a very active depth interval of groundwater production.

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Extensometer data have been collected over time, and a consistent dataset from December 2013 to present is provided in the table below. Time-series (Appendix H) data show that between December 2013 and October 2016, the rate of subsidence recorded by 25S/22E-35B001 extensometer was nearly 1.0 inch per year. This rate is within the range of rates reported for CGPS points in the area (0.1 to 2.8 inches per year) and is consistent with the interpretation that higher rates of subsidence are northeast of SWSD and inside the northeast boundary of SWSD, while lower rates are observed in central SWSD, to the south and to the west.

Time-Series Data

Time-series data (Appendix H) present cumulative subsidence from approximately 2006 to 2017 with corresponding water level elevation hydrographs observed from nearby wells. Below normal to "critical dry" water years are shaded in yellow, while above normal to "wet" water years are shaded in gray. All wells are within the lower zone or main production groundwater zone unless noted with "upper zone".

Variation in subsidence on the time-series is a function of:

- elastic subsidence to inelastic subsidence as well as the lag time of subsidence after the main pumping season,
- the distribution of fine-grained sediments in the subsurface,
- the amount of water pumped from fine-grained units, and
- potential near-surface factors such as shrinking and swelling of some soil types due to precipitation or other factors.

All the factors mentioned above may introduce additional signals or noise to the CGPS data; however, general broad trends are discernible when plotting data with water year type and nearby water levels. In the future, more water level monitoring and pumping data in areas near these CGPS stations may provide finer resolution of data to interpret lag times, elastic changes, and other short-term signals.

Based on the attached time-series, residual subsidence persists after each pumping season (especially in dry years) for relatively long periods of time (several months to over a year). Researchers note that delayed or residual subsidence response may occur in the Central Valley for years after pumping (USGS, 2018b).

The following observations were derived from the time-series data:

- P544 (Twisselman Road) shows increasing subsidence associated with dry years. Subsidence may lag up to 6 months after pumping season, while long-term residual subsidence and elastic rebound is observed from 6 to 18 months. No water level data in nearby pumping zones were available. Only water levels from shallow monitoring piezometers are plotted on this chart.

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- P545 (Lerdo Highway) shows increasing subsidence associated with dry years and water level decline in the lower zone. Water levels and some elastic subsidence may recover/rebound within a month of the beginning of a wet water year; however, both elastic and inelastic subsidence lags for at least 6 to 18 months or longer after a dry year. Subsidence rates trend more with lower zone water levels than upper zone water levels. The included upper zone well is located in Buena Vista Water Storage District (BVWSD), is in the upper zone above the "E" Clay or equivalent and may vary over time because of groundwater production in the upper zone that occurs in BVWSD.

- P563 (Buttonwillow Rest Area) data are similar to P545, with subsidence associated with dry years and the rebound from elastic subsidence due to wet year conditions and stabilization of water levels. The subsidence time lag is evident in the elastic recovery from April 2011 to summer 2012. Similar to P545, changes in subsidence rates do not correlate significantly with upper zone water levels. Subsidence rates are associated with decline in water level from the lower zone.

- Data for SWSD Extensometer 25S22E35B001M are collected monthly to quarterly rather than daily, so any small-scale noise, rebound, or recovery aren't seen in the data. Consequently, subsidence may be more apparent in the extensometer data while water levels are variable during each year. Continued monitoring may confirm the consequences of residual drawdown during sequential wet years. In general, subsidence or compaction occurs during dry years, and a decrease in the rate of subsidence is observed during wet years.

- P564 (Wasco) within SWID. In general, rates of subsidence increase during dry years and decrease during wet years. Between 2009 to 2011, elastic rebound (recovery) appears to outgain inelastic subsidence. On the other hand, between the wet year 2016 to 2017, subsidence continued but at a low rate even after some recovery of water levels. Note: P564 subsidence data are plotted on a smaller vertical scale (from -2 to 18 inches) than P545 and P563. As a result, smaller monthly changes in subsidence observed in the latter, aren't as apparent in P564

- P565 (Delano) within SSJMUD, also plots subsidence on a smaller vertical scale. P565 shows a lesser rate of subsidence between 2006 and 2009 in comparison to P564 but shows a similar rate of decline between 2011 and 2016. Overall, subsidence at P565 increases during dry years and decreases in wet years. A slight elastic rebound is observed in wet years. This plot is consistent with overall regional trends of declining water levels during the drought.

Remote Sensing

Recent investigations of land surface subsidence include Satellite-based Interferometric Synthetic Aperture Radar (InSAR), aircraft-based L-band SAR or Unmanned Aerial Vehicle Synthetic Aperture Radar (UAVSAR). The data from these remote sensing

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techniques have been processed by the National Aeronautics and Space Administration (NASA) Jet Propulsion Laboratory (JPL). Reported data have been published in a subsidence study commissioned by the California Water Foundation (LSCE, 2014), and by JPL via the DWR SGMA Data Viewer (DWR, 2018a) and the DWR website (NASA, 2015, NASA, 2016). The InSAR data were processed from a group of satellites including but not limited to: Japanese PALSAR, Canadian Radarsat-2, and European Space Agency's (ESA) satellite-borne Sentinel-1A. Data reported herein are from 2006 to 2017 with a gap from 2011 to 2014 when satellite outage occurred before the launch of the ESA's Sentinel satellites in 2014.

Ojha et. al. 2019, compared InSAR vertical displacement time series against CGPS and extensometer data by averaging the value of InSAR pixels within 200 m of each GPS and extensometer station. They found a good agreement between InSAR measurements and CGPS and extensometer data. The average standard deviation of the difference between InSAR and GPS was 0.9 inch, and between InSAR and extensometer data was 0.6 inch (Ojha et. al, 2019). The agreement of InSAR with extensometer measurements indicates that the majority of the compaction measured by InSAR occurs in the same depth intervals as extensometers and that any change or compaction in the subsurface below the average extensometer depth (1300 feet) is negligible.

DWR is currently evaluating the remote sensing data with in-field measurements, such as from CGPS stations, as a means of "ground truthing" the remote sensing data (DWR, 2018b). This plan does not intend to validate the InSAR data, but only to present it as best available regional data. Data gaps are undoubtedly present, and therefore, the discussion below is a qualitative interpretation of the data. Nonetheless, cumulative subsidence and rates of subsidence, based on InSAR data, are also provided in the table below and in the attached figures.

Along with InSAR data, the CGPS data for P564 and P565 are plotted as cumulative subsidence on Figure 2-27 and Figure 2-28. Evaluating spatial distribution of land subsidence. Data from 2007 to 2011 show subsidence of 1.7 inches in CGPS points within SSJMUD and 0 to ~1.2 inches for InSAR data within SSJMUD. Data from 2015 to 2016 show subsidence of 3.7 inches in CGPS points within SSJMUD, and 0 to ~8 inches for InSAR data within SSJMUD.

Discussion of Results

Overall, the subsidence data indicate that centers of greatest decline, both historically and recently, occur north of the study area in the adjacent subbasin and propagate outward to the south, west, and southwest into Kern. As a qualitative observation, the CGPS, extensometer, and InSAR data agree with the trends as stated above. From a quantitative standpoint, the magnitude of subsidence reported from InSAR from 2015 to 2016 is much higher than surrounding CGPS and extensometer data points. In the future, additional

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monitoring points would be beneficial to corroborate the highest subsidence rates detected by InSAR in northwest SSJMUD.

Based on time-series data, subsidence appears generally to trend with water levels from lower zone wells – deeper wells with screens below confining clays ("E" clay or equivalent), which are more likely to dewater fine-grained beds below the confining units. Consequently, recent subsidence does not trend as closely with upper zone water levels.

Continued monitoring of water levels, pumping, and subsidence, as well as more detailed subsurface lithologic characterization may provide a better dataset for future projection of subsidence. At this time, the calculated rates of subsidence have been posted on the results table and the time-series charts. These historical rates present an estimate of possible future subsidence rates if groundwater extraction continues at the current rate.

Table 2-12: Subsidence Results

District Area	Date Range	Approximate Cumulative Subsidence (inches)	Approximate Annual Rate of Subsidence (inches/year)	Source
North of SSJMUD boundary (Historical)	1926 to 1970	0 to 150	0 to 3.4	Ireland, 1984. Topographic Maps and Leveling Data
North of SSJMUD boundary	2007 to 2011	4 to 12	1.0 to 2.9	LSCE, 2014. JPL InSAR
West, South, SW SSJMUD (Historical)	1926 to 1970	0 to 48	0 to 1.1	Ireland, 1984. Topographic Maps and Leveling Data.
NE SSJMUD	1926 to 1970	48 to 120	1.1 to 2.7	Ireland, 1984.
West SSJMUD	1926 to 1970	12 to 48	0.3 to 1.1	Ireland, 1984.
Central SSJMUD	1926 to 1970	12 to 48	0.3 to 1.1	Ireland, 1984.
	1962 to 1970	12	1.5	Poland et al, 1975.
SWID. Wasco Proximity	Oct-06 to Oct-09 Jan-07 to Mar-11 Oct-11 to Oct-16 Spring-12 to Jul-17 May-15 to Sep-16 Dec-13 to Oct-16	5.5 4.3 10.3 10.7 3.0 6.8	1.8 1.0 2.1 2.0 2.3 2.4	CGPS PBO (P564).
SSJMUD. Delano proximity	Oct-06 to Oct-09 Jan-07 to Mar-11 Oct-11 to Oct-16 Spring-12 to Jul-17 May-15 to Sep-16 Dec-13 to Oct-16	2.0 1.7 10.7 11.0 3.7 8.0	0.7 0.4 2.1 5.3 3.0 2.8	CGPS PBO (P565).
SSJMUD extent	Jan. 2007 to Mar. 2011	-2.7 to 4	0.6 to 1	LSCE, 2014. Compiled from InSAR (negative values are potential uplift in land surface).
North of SSJMUD boundary		4 to 12	1.0 to 2.9	

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District Area	Date Range	Approximate Cumulative Subsidence (inches)	Approximate Annual Rate of Subsidence (inches/year)	Source
SSJMUD extent	May 2015 to Sept. 2016	0.4 to 10.4	0.3 to 7.8	InSAR ESA Sentinel-1A (Farr et al., 2016)
North of SSJMUD boundary		1.1 to 16	0.8 to 12.3	

Future Data Availability and Subsidence

According to USGS, the ESA's Sentinel satellites collect InSAR data at an approximate weekly rate, and data are available for download and interpretation (personal communication, USGS). These InSAR data are available but will require users support for the interpretation and distribution of the information. Likewise, CGPS data will likely to be available for future use. DWR is currently evaluating the remote sensing data with in-field measurements such as from CGPS stations, as a means of "ground truthing" the data (DWR, 2018b). Continued improvements in data interpretation and processing will benefit remote subsidence monitoring along with continued collection of CGPS and extensometer data. Figure 2-31 shows the locations of CGPS locations and FKC Benchmark survey locations within SSJMUD that will be used for future subsidence monitoring. Further discussion of subsidence monitoring will be addressed in the Monitoring Networks section of this report.

2.3.6 *Interconnected Surface Water Systems*

Interconnected surface water systems are surface waters that are hydraulically connected by a continuous saturated zone to an underlying aquifer (DWR, 2016). There are no known natural interconnected surface water systems near SSJMUD since the subsequent impoundment and regulation of flow of the Kern River and groundwater pumping.

Apart from managed surface water to natural drainages in the study area, Poso Creek channel is the only channel that experiences natural recharge from the surrounding highlands. However, Poso Creek is ephemeral and only flows during limited "wet" months of some "wet" years.

2.3.7 *Potential Groundwater Dependent Ecosystems*

SGMA defines a Groundwater Dependent Ecosystem (GDE) as ecological communities or species that depend on groundwater emerging from aquifers or on groundwater occurring near the ground surface. SGMA states that a GSP shall include impacts on GDEs but does not explicitly state the requirements that warrant a GDE to be eligible for protection.

The first step in evaluating a potential GDE is to identify vegetation communities that are typically associated with groundwater, and secondly, to confirm the presence of shallow

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groundwater that could support potential GDEs. Lastly, is to evaluate any active groundwater pumping that could lead to shallow groundwater level change in the vicinity of potential GDEs.

In SSJMUD, there are no known GDEs. Many of the vegetation communities that could be potential GDEs are likely to be associated with managed wetlands and riparian areas that are supported by a combination of groundwater and imported surface water. In addition, other potential habitats include ephemeral wetlands covered by water seasonally but supported by irrigation deliveries and precipitation, and groundwater recharge basins that are artificially flooded with surface water.

Currently, the best available dataset for evaluating the occurrence of vegetation communities that are typically associated with groundwater is the Natural Communities Commonly Associated with Groundwater (NCCAG) dataset (DWR, 2018c). DWR has stated that use of the NCCAG dataset is not mandatory and does not represent DWR's determination of a GDE. Rather, NCCAG can provide a starting point for the identification of GDEs within a groundwater basin (DWR, 2018c).

The NCCAG dataset maps vegetation in the northwest part of SSJMUD. There are no known natural or surface water features that support shallow groundwater in SSJMUD. KCWA has not mapped shallow groundwater in SSJMUD. Therefore, further investigation may be warranted to understand the NCCAG dataset mapped in the district.

Below is a discussion of the NCCAG dataset. For reference, the NCCAG vegetation and wetlands data are presented in Figures 2-32 and 2-33, respectively. Distribution of mapped NCCAG vegetation occurs in the natural lowlands along Poso Creek.

2.3.7.1 Review of NCCAG Dataset Components

The NCCAG dataset was compiled based on 48 layers of publicly available data sets developed by state or federal agencies that map vegetation, wetlands, springs, and seeps in California (DWR 2019). A technical working group with representatives from DWR, California Department of Fish and Wildlife (CDFW), and TNC reviewed the datasets compiled to assemble the NCCAG. This dataset attempts to extract mapped vegetation and wetland features that have indicators suggesting dependence on groundwater. The data presented in NCCAG display vegetation polygons that have indicators of GDEs based on published and/or field observations of phreatophytic vegetation characteristics in California, flooding frequency, or areas classified as perennial hydrologic features. A phreatophyte is defined as a "deep-rooted plant that obtains water that it needs from the phreatic zone (zone of saturation) or the capillary fringe above the phreatic zone" (TNC 2018b). The dominance of phreatophytic plant species in a mapped vegetation type is a primary indicator of GDEs. A list of plant species considered to be phreatophytes based on review of peer-reviewed scientific literature on rooting depths, published lists of

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phreatophytes, expert field observations, and vegetation alliance descriptions is publicly available (Klausmeyer et al. 2018, TNC 2018a).

While developing the NCCAG dataset of areas with indicators of GDEs, the technical working group attempted to exclude vegetation and wetland types and polygons that are less likely to be associated with groundwater (Klausmeyer et al. 2018). For example, riparian vegetation along perennial mountain streams is generally not in the NCCAG dataset, because although these communities contain species that can act as phreatophytes, vegetation at those sites is generally sustained by surface waters that are not locally interconnected with shallow groundwater aquifers. The working group also attempted to remove any polygons that are not likely to be GDEs where they occurred in areas where they are more likely supported by alternate artificial water sources (e.g. local seepage from agricultural irrigation canals), or where appropriate available data indicated the shallow groundwater depth is located well below the rooting zone (Klausmeyer et al. 2018).

The Vegetation Classification and Mapping Program (VegCAMP) and National Wetland Inventory (NWI) are the vegetation mapping datasets that cover the water districts of interest and a discussion of each dataset follows below.

The VegCAMP dataset is the primary vegetation base layer used for the NCCAG dataset. Fish and Game code Section 1940 directed CDFW to develop and maintain a standardized vegetation dataset for the state of California, which conforms to the U.S. National Vegetation Classification Standards, and to produce a hierarchical classification of vegetation types. VegCAMP is the product of the Survey of California Vegetation (SCV). Vegetation polygon attributes are assigned to the alliance taxon level in the hierarchical classification system, when possible. An "alliance" is a lower taxonomic rank that is based on plant species composition as compared to higher taxon levels that more broadly define the life form (tree, shrub, or herbaceous) and ecological drivers (e.g., climate, regionalism). The alliance-level taxon is a group of diagnostic plant species that repeat across a landscape reflecting regional to sub-regional climate, substrate, hydrology, moisture/nutrient factors, and disturbance regimes. The VegCAMP data also includes polygons of group-level, which are higher level and less specific than alliance level descriptions. Alliances are defined and described in detail by A Manual of California Vegetation (Sawyer et al. 2009).

The VegCAMP vegetation maps are geospatially registered polygons that are digitized on base imagery that meets or exceeds the National Agricultural Imagery Program (NAIP) resolution standards of 1-meter ground sample distance. VegCAMP is considered the highest resolution data source for California vegetation mapping and is therefore used as the basis of the NCCAG dataset. The minimum map unit (MMU) of VegCAMP data is typically 1–2 acres, with a maximum of 10 acres; wetlands identified in VegCAMP have an MMU of 0.25 acre with the minimum polygon width of at least 10 meters (DWR

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2018c). Accuracy Assessments are conducted in-field as a form of quality control, to correct any specific and systematic errors prior to map finalization and release. SCV requires every map to be verified and to meet a standard of at least 80 percent overall accuracy between map units and spot checks, and the maps typically exceed this standard. Data gaps and overlaps are ideally eliminated through geodatabase quality checking of each map (CDFW 2018).

The National Wetland Inventory (NWI) created by the U.S. Fish and Wildlife Service (USFWS) is a mapping tool that identifies wetlands by type (based on the Cowardin classification; Cowardin et al. 1979) and distribution throughout the United States. NWI relies on trained image analysts to digitize wetland habitats, which are identified based on vegetation, visible hydrology and geography. Mapping is completed at 1:24,000 scale (1-inch equals 2000 feet). A margin of error is inherent in the identification of wetlands on imagery; thus, detailed on-the-ground inspection of any site may result in revision of the wetland boundaries or classification established through image analysis (USFWS 2018). In the continental United States, NWI uses a target MMU of 0.5 acre (USFWS 2015). Certain types of "farmed wetlands" and submerged aquatic vegetation found in intertidal and subtidal zones of estuaries are specifically excluded from the NWI dataset.

2.3.7.2 Conclusions

As state in the introduction of this section, there are no known GDEs in SSJMUD. Although NCCAG data are mapped within the Poso Creek channel and in the northwest corner of the District, persistent shallow groundwater has not been documented in either location. Poso Creek is ephemeral and rarely flows west of SR-99. Based on the data gaps discussed in the above description, a field survey may be warranted to identify some of the NCCAG species listed in the Poso Creek area and in the northwestern portion of the District. In addition, field investigation of any potential shallow water table within the Poso Creek channel may be informative.

2.4 Management Areas within SSJMUD

This management area plan covers the jurisdiction of SSJMUD as shown in Figure 2-34. Management areas for the districts described in this management area plan are defined as follows:

2.4.1 SSJMUD District Management Area

The "District" management area consists of the land located within the boundaries of SSJMUD, including those undistricted "islands" that are entirely within SSJMUD and lands within the limits of the cities of Delano and McFarland. These areas are subject to the sustainable management criteria, projects, and management actions defined by SSJMUD in this plan.

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2.4.2 SSJMUD Undistricted Management Area

The "Undistricted" management area consists of the land located adjacent to SSJMUD's boundaries which are to be covered for SGMA compliance with the District's management area plan. In 2019, Kern County withdrew from membership in the KGA, which resulted in undistricted lands of the Subbasin no longer being covered under the KGA's GSP. In order to give landowners a method by which they could comply with SGMA, the Member Agencies of the KGA engaged with landowners to establish agreements by which the landowner would be covered by the sustainable management criteria, projects, and management actions of a district without annexation into that district. SSJMUD has entered into agreements with landowners who represent 320 acres of undistricted land.

2.5 District Water Budget

The following section describes, in detail, the estimation of water budgets for the SSJMUD management area covered in this plan. The water budgets were developed to quantify the inflows and outflows within the District, based on water supply availability, water demand, and land use information for a historical, current, and future time periods.

Historical water budget was estimated for the time period between water year 1993 and 2015. This time period was selected as it includes varying conditions of water years affected by changes in water supply availability and changes to water demand. This period was also selected as reliable data is available for the district and includes enough variability to quantify and evaluate district responses.

The current conditions water budget uses the historical period averages as a baseline and adds the projects and management actions that have been implemented in the years from 2015 to 2019.The projected water budget uses a representative period of 1970 to 2009 to project the SSJMUD CVP contract supply to determine the average long-term hydrology. Other supply and demand components are determined from components of the historical budget.

Sections 2.5.1 and 2.5.2 outline data for the historical water budget for 1993 to 2015, relying on the inflow into the districts and the outflow out of the districts to determine the representative change in storage. The data is summarized in yearly format with approximations made to some data sources based on best judgement.

2.5.1 Water Budget Components

The following section describes in detail various components of the water budget, methodology and data sources used in estimation of these water budget components.

2.5.1.1 Demand

Total demand for the District's management area is estimated as the sum of -

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- Evapotranspiration (ET) of irrigated acreage,
- surface water outflow, and
- subsurface outflow.

ET was estimated for the total irrigated acres within the District. Urban areas were excluded in this demand estimation as urban water demand was included in the cities' pumping data in Section 2.5.1.11. Land use outside of the irrigated acres and urban areas rely on water supplies other than groundwater pumping and were therefore not considered in this demand estimation.

2.5.1.2 Evapotranspiration

Irrigated acres were estimated based on the 2014 land use data developed by Land IQ, on behalf of DWR. SSJMUD's management areas comprise of approximately 65,000 acres. Land use data collected by SSJMUD indicated that irrigated acreage remained relatively constant over the years ranging from 51,639 acres in 1993 to 42,572 acres in 2016. The irrigated acreage estimated by Land IQ in 2014 was estimated as 44,787 acres, which falls in this range. This land use distribution for SSJMUD's jurisdictional area is shown in Figure 2-22.

ET data is used to estimate the districts historical groundwater pumping requirements. ET for agricultural lands was estimated based on the Irrigation Training and Research Center (ITRC) ET data from 1993 to 2015 based on the corresponding Land IQ irrigated land use data. ITRC estimates ET data based on satellite imagery. As explained previously, irrigated acreage remained relatively constant over the years. However, ET data varied due to the changing crop patterns.

Table 2-13 shows the estimated ET for SSJMUD based on the corresponding irrigated acreages from 1993 to 2015. SSJMUD's ET varied from 101.2 thousand acre-feet (TAF) in 2015 to 141.5 TAF in 2013 with an average ET of 121.6 TAF.

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Table 2-13: SSJMUD Historical ET Data, in TAF

Year	Total ET (ITRC)
1993	124.5
1994	130.2
1995	127.0
1996	140.6
1997	122.3
1998	116.4
1999	108.5
2000	114.9
2001	128.4
2002	126.5
2003	124.5
2004	137.8
2005	123.7
2006	109.3
2007	121.2
2008	117.5
2009	117.4
2010	111.8
2011	113.7
2012	127.6
2013	141.5
2014	119.5
2015	101.2
Minimum	**101.2**
Maximum	**141.5**
Average 1993-2015:	**121.6**

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ET for non-agricultural lands such as riparian vegetation is not included in this estimation as it was assumed that the precipitation over the non-agricultural land will result in a net zero demand. ET in urban areas is also excluded, as it is accounted for in the cities' pumpage estimation.

2.5.1.3 Surface Outflows

In addition to participating in transfer and exchange programs, SSJMUD also periodically participates in banking services and return water to other agencies. In the period of 1993 to 2015, SSJMUD participated in such a groundwater bank with KTWD. A summary of SSJMUD's historical outflows to KTWD is shown in Table 2-14. These outflows range from zero to a maximum of 2.17 TAF in 2000. The average outflow to KTWD was 0.5 TAF over the hydrologic base period of 1993 to 2015.

The deliveries made to districts in the Subbasin participating in the transfer and exchange programs, over a long period of time, is expected to net zero change in groundwater storage. This is reflected in the surface outflow components in the projected future water budget for SSJMUD.

2.5.1.4 Subsurface Outflows

At this time, there is insufficient data to determine the exact volume of subsurface outflow from SSJMUD. Therefore, for the purposes of this management area plan, it is assumed that subsurface outflows into the Kern County Subbasin net zero change in groundwater storage. This has been identified as a data gap and will be addressed in future plan updates.

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Table 2-14: SSJMUD Surface Outflows, in AF

Year	Total Outflow from District
1993	0
1994	0
1995	0
1996	0
1997	0
1998	0
1999	2,081
2000	2,168
2001	40
2002	0
2003	1,898
2004	0
2005	1,969
2006	1,541
2007	188
2008	0
2009	1,879
2010	0
2011	0
2012	0
2013	0
2014	0
2015	0
Minimum	**0**
Maximum	**2,168**
Average 1993-2015:	**511**

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2.5.1.5 Sustainable Yield

The sustainable yield is the expected amount of water each district is allowed to pump from the Subbasin without seeing significant impacts or undesirable results. The sustainable yield can be used as a way for each district to manage its performance in reaching groundwater sustainability. While the thresholds, objectives, and milestones of each sustainability indicator are the metric by which the Subbasin will be evaluated, the districts may use the sustainable yield as one way to ensure that they maintain their objectives as described in this plan.

There are two components to sustainable yield: native yield and surface water supply. Native yield is the sum of subsurface flow, runoff, and precipitation. According to the KGA, subsurface flow and runoff are assumed to be between 0.15 AF per acre and 0.30 AF per acre in the Subbasin. An assumed precipitation volume of 0.42 AF/acre for irrigated lands is also a component of sustainable yield for the Subbasin. The summation of these components provides a native yield range of 0.57 AF per acre to 0.72 AF per acre for irrigated lands. Because precipitation is only accounted for over irrigated acreage, the native yield for other land uses is 0.15 AF per acre to 0.30 AF per acre. The sustainable yield for land with access to surface water supply is the native yield, plus whatever surface water is available.

2.5.1.6 Water Supply

SSJMUD primarily receives water through supplemental water sources. Native sources such as streambed infiltration are considered minimal. Supplemental water sources for SSJMUD include water received from the CVP contract and surplus water, when it is available.

Native sources are available from precipitation, subsurface flow, and runoff. Precipitation over non-agricultural lands is estimated as a net zero change in groundwater storage as it was assumed that the ET for these non-agricultural lands balances out the precipitation. As a result, only precipitation over agricultural lands is used to estimate water supply into the District. For the purposes of developing these water budget components for SGMA planning, an assumed precipitation value of 0.42 AF per irrigated acre is used.

Subsurface flow and runoff are components of native yield that are estimated to be in the range of 0.15 AF per acre to 0.30 AF per acre and is attributed to all lands within the Subbasin. The summary of SSJMUD's water supply is presented in Table 2-15.

2.5.1.7 CVP Water

The CVP is the primary source of surface water available to SSJMUD and provides water via the Friant-Kern Canal from Millerton Lake (Friant Reservoir). SSJMUD, through its contract with the USBR, receives 97 TAF of Class 1 and 45 TAF of Class 2 water per year. This water is used to supplement ET demand. In addition, the District receives recaptured Class 1 and Class 2, 16B, and other water when available from the CVP. The non-Class 1 and non-Class 2 water are typically "surplus water" made available during periods of forecasted spill on the Friant Dam. On average, SSJMUD receives 96.0 TAF of deliveries via the Friant-Kern Canal (1993-2015) as shown in Table 2-15.

2.5.1.8 Precipitation

Precipitation is a source of inflow into the District. However, precipitation is only considered for the irrigated acreage. Areas outside irrigated acreage such as native vegetation is assumed to net zero in the water budget analysis as it was assumed that the

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demand is met by the precipitation. Similarly, rural areas were also estimated to net zero in the water budget and were estimated to be of minimal use.

Through the coordination with all the member agencies of KGA, it was estimated that the average precipitation for the area is 0.42 AF per acre per year. This value is applied as an annual value to the irrigated acreage and is observed in Table 2-15.

2.5.1.9 Inflow to the Groundwater System

For the purposes of developing the water budgets for this plan, an assumed zero net change in groundwater storage is used. This assumption is made in the absence of reliable data. This has been identified as a data gap and will be addressed in subsequent plan updates.

2.5.1.10 Agricultural Pumping

Groundwater pumping in the District is estimated as the volume of water required to supplement surface water supplies to cover the total ET for the irrigated lands.

Agricultural pumping is estimated as:

$$AP = CD - SWc - Pr$$

where: AP = Agricultural Pumping

CD = Agricultural Crop Demand

SWc = Surface Water Crop Delivery

Pr = Total Precipitation

Total pumping is dependent on the amount of surface water available to the District which varies annually. During wet years, the District requires less pumping due to excess surface water imports; similarly, during dry years the District would require more pumping due to decreased surface water imports.

The volume of groundwater pumping (change in storage) within the SSJMUD from 1993 to 2015 are shown in Table 2-16. It was observed that SSJMUD has an average change in storage ranging from 2.5 TAF per year to 12.3 TAF per year of net surplus based on the 0.15 AF per acre to 0.30 AF per acre of native inflow range. The negative values in the change in storage columns represent the years in which the District had to pump groundwater in order to meet the ET demand of irrigated acreage.

Using the native inflow range over the period of 1993 to 2015, it is estimated that the largest volume that the District had to pump was 85.2 TAF in 2014. The largest surplus of water in the District over this same period, using the native yield range, is an estimated 50.5 TAF in 2011. While the District shows an average surplus condition, operational conditions during drought (as observed in the 2012 – 2015 period) severely limit the

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Table 2-15. Summary of SSJMUD Water Supply

Year	Friant-Kern Canal Deliveries[1]	Avg Rainfall[2]	Native Inflow (0.15 AF/acre)[3]	Native Inflow (0.30 AF/acre)[4]	Total Water Supply (0.15 AF/acre)[5]	Total Water Supply (0.30 AF/acre)[6]
1993	111.1	18.8	9.8	19.5	139.7	149.5
1994	79.0	18.8	9.8	19.5	107.5	117.3
1995	116.1	18.8	9.8	19.5	144.6	154.4
1996	125.5	18.8	9.8	19.5	154.1	163.8
1997	124.0	18.8	9.8	19.5	152.5	162.3
1998	89.7	18.8	9.8	19.5	118.2	128.0
1999	114.5	18.8	9.8	19.5	143.1	152.8
2000	122.0	18.8	9.8	19.5	150.6	160.3
2001	96.5	18.8	9.8	19.5	125.1	134.8
2002	103.3	18.8	9.8	19.5	131.8	141.6
2003	111.4	18.8	9.8	19.5	140.0	149.7
2004	101.2	18.8	9.8	19.5	129.7	139.5
2005	121.0	18.8	9.8	19.5	149.6	159.3
2006	118.2	18.8	9.8	19.5	146.7	156.5
2007	71.4	18.8	9.8	19.5	100.0	109.7
2008	92.5	18.8	9.8	19.5	121.0	130.8
2009	121.3	18.8	9.8	19.5	149.8	159.6
2010	117.7	18.8	9.8	19.5	146.3	156.0
2011	125.9	18.8	9.8	19.5	154.4	164.2
2012	76.5	18.8	9.8	19.5	105.1	114.8
2013	61.8	18.8	9.8	19.5	89.5	99.3
2014	5.8	18.8	9.8	19.5	34.3	44.1
2015	3.3	18.8	9.8	19.5	31.9	41.6
Minimum	3.3	18.8	9.8	19.5	**31.9**	**41.6**
Maximum	125.9	18.8	9.8	19.5	**154.4**	**164.2**
Average 1993-2015:	96.0	18.8	9.8	19.5	**124.6**	**134.3**

(1) All Surface Water Deliveries, which supplement irrigated acreage, Includes FKC water Delivered to Kern Tulare WD

(2) Estimated Rainfall 0.42 feet per irrigated acre

(3) Native Inflow of 0.15 AF/acre for gross acreage

(4) Native Inflow of 0.30 AF/acre for gross acreage

(5) Total Water Supply (0.15 AF/acre Native Inflow)

(6) Total Water Supply (0.30 AF/acre Native Inflow)

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Table 2-16: SSJMUD Estimated Ag Pumpage, in TAF

Year	Friant-Kern Canal Deliveries	To Other Districts	Avg Rainfall	ET (ITRC)	Native Inflow (0.15 AF/acre)	Native Inflow (0.30 AF/acre)	Δ Storage (0.15 AF/acre)	Δ Storage (0.30 AF/acre)
1993	111.1	0.0	18.8	124.5	9.8	19.5	15.3	25.0
1994	79.0	0.0	18.8	130.2	9.8	19.5	(22.7)	(12.9)
1995	116.1	0.0	18.8	127.0	9.8	19.5	17.7	27.4
1996	125.5	0.0	18.8	140.6	9.8	19.5	13.4	23.2
1997	124.0	0.0	18.8	122.3	9.8	19.5	30.3	40.0
1998	89.7	0.0	18.8	116.4	9.8	19.5	1.9	11.6
1999	114.5	2.1	18.8	108.5	9.8	19.5	32.5	42.2
2000	122.0	2.2	18.8	114.9	9.8	19.5	33.5	43.2
2001	96.5	0.0	18.8	126.4	9.8	19.5	(3.4)	6.4
2002	103.3	0.0	18.8	126.5	9.8	19.5	5.3	15.0
2003	111.4	1.9	18.8	124.5	9.8	19.5	13.5	23.3
2004	101.2	0.0	18.8	137.8	9.8	19.5	(8.1)	1.7
2005	121.0	2.0	18.8	113.7	9.8	19.5	33.9	43.6
2006	118.2	1.5	18.8	109.3	9.8	19.5	35.9	45.6
2007	71.4	0.2	18.8	124.2	9.8	19.5	(21.4)	(11.6)
2008	92.5	0.0	18.8	117.5	9.8	19.5	3.5	13.3
2009	121.3	1.9	18.8	117.4	9.8	19.5	30.6	40.3
2010	117.7	0.0	18.8	111.8	9.8	19.5	34.4	44.2
2011	125.9	0.0	18.8	113.7	9.8	19.5	40.8	50.5
2012	76.5	0.0	18.8	127.6	9.8	19.5	(22.5)	(12.8)
2013	61.0	0.0	18.8	141.5	9.8	19.5	(52.0)	(42.3)
2014	5.8	0.0	18.8	119.5	9.8	19.5	(85.2)	(75.5)
2015	3.3	0.0	18.8	101.2	9.8	19.5	(69.3)	(59.5)
Minimum	3.3	0.0	18.8	101.2	9.8	19.5	(85.2)	(75.5)
Maximum	125.9	2.2	18.8	141.5	9.8	19.5	40.8	50.5
Average 1993-2015:	96.0	0.5	18.8	121.6	9.8	19.5	**2.5**	**12.3**

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amount of surface water delivered into SSJMUD. As a result, the District had to rely heavily on groundwater to meet ET demand.

2.5.1.11 Urban Pumping

City of Delano and City of McFarland do not have detailed urban pumping data available at this time for the entire hydrologic base period of 1993 to 2015. Groundwater pumping for the cities was estimated for 2005, 2010 and 2015 in the City of Delano's 2015 Urban Water Management Plan (UWMP) and in City of McFarland's 2015 General Plan Amendment Environmental Impact Report (EIR). This data does not include the demand from either of the prisons in SSJMUD's jurisdictional area as neither of the cities provide water to the prisons. The cities of Delano and McFarland have provided actual groundwater pumping volumes for use in the historical water budget for SSJMUD and to develop projected water budgets for this management area plan.

This combination of estimated and actual data was used to estimate the 2005, 2010 and 2015 urban pumping for SSJMUD. Table 2-17 provides a summary of City of Delano and City of McFarland urban pumping for 2005, 2010, and 2015, which represents the urban pumping for SSJMUD's management area. As shown in the below table, it was observed that urban pumping decreased in 2015 when compared to 2005 and 2010. This decrease in demand can be attributed to the historical drought the State of California experienced between 2011 and 2015 which enacted water restrictions on urban users and promoted conservation of urban water.

Table 2-16: SSJMUD Estimated Urban Pumpage, in TAF

City	2005	2010*	2015*
Delano	9.8	9.3	8.1
McFarland	1.6	1.7	1.8
Total	11.4	11.0	9.9

* Values in UWMP updated to actual Production values

2.5.1.12 Urban Recovery

The City of Delano has a wastewater treatment plant (WWTP) located in SSJMUD. The effluent from the WWTP is applied to agricultural land for beneficial reuse as irrigation water for permanent tree crops or pasture and hay crops in proximity to the WWTP. The historic wastewater flows are shown in Table 2-18. The effluent provided for beneficial reuse ranging from 3.7 TAF to 4.9 TAF, with an average of 4.5 TAF and an average recovery rate of 49.2%.

The McFarland WWTP is located outside of SSJMUD's jurisdictional area, in NKWSD. Like Delano's WWTP, the effluent from the McFarland WWTP is provided for beneficial reuse in irrigation of tree crops, pasture, or for groundwater recharge. At this

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time, the effluent from McFarland's WWTP is credited to NKWSD's water budget because it is used outside of SSJMUD.

Table 2-18: Delano WWTP Effluent Volumes, in TAF

	2005	2010 [1]	2015 [1]	Average
Groundwater Pumped	9.8	9.3	8.1	**9.0**
% of Supply	50%	52%	45%	**49.2%**
Recycled	4.9	4.8	3.7	**4.5**

(1) Values updated to reflect actual city effluent volumes.

2.5.2 Historical Water Budget

The historical water budget for SSJMUD's jurisdictional area, presented in Table 2-19, represents the average conditions for the hydrologic base period of 1993 to 2015. This water budget includes the average change in groundwater storage to do agricultural groundwater pumping, imported water supplies, and urban groundwater pumping. The coordinated subsurface inflow range of 0.15 AF per acre to 0.30 AF per acre and the assumed precipitation of 0.42 AF per irrigated acre is included in Table 2-19. Over this assumed range, the average change in groundwater storage for SSJMUD's jurisdictional area ranges from 4.0 TAF overdraft to 5.7 TAF surplus.

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Table 2-19: SSJMUD Historical Water Budget (1993-2015), in TAF

Data Type, Water Year and Hydrologic Condition (1)	Total Surface Inflow + (2)	Total Surface Outflow - (3)	Total Rainfall + (4)	Total ET (ITRC) - (5)	Δ Storage (Irrigated Lands) = (6)	City of Delano Demand - (7)	City of McFarland Demand - (8)	City of Delano Recycled Water + (9)	Native Inflow (0.15 AF/acre) + (10)	Native Inflow (0.30 AF/acre) + (11)	Δ Storage w/NY and City Data (0.15 AF/acre) = (12)	Δ Storage w/NY and City Data (0.30 AF/acre) = (13)
Historical Data												
Average												
1993 to 2015	96.0	0.5	18.8	121.6	(7.2)	9.3	1.7	4.5	9.8	19.5	(4.0)	5.7

Notes:

(1) Data presented as historical (1993-2015) average conditions.

(2) Historical Data includes Deliveries brought in through FKC. CVP Model Data includes Sum of: Class 1, Class 2, Other, 16B, Recapture Class 1, Recapture Class 2

(3) Delivery to Kern Tulare

(4) Estimated 0.42 AF per acre over irrigated acreage (44,787 acres) (Rainfall over non-irrigated acreage assumed balanced by total ET)

(5) Historical is average 1993 to 2015 value. CVP Model Data uses Average of 2013 to 2015 over irrigated acreage (Rainfall over non-irrigated acreage assumed net zero with total ET)

(6) Determined by (6) = (2)+(4)-(3)-(5)

(7) Average Consumptive Demand of City of Delano based on 2015 Urban Water Management Plan with updated 2015 consumptive use data

(8) Average Consumptive Demand of City of McFarland based on its EIR for the 2015 General Plan Amendment with updated 2015 consumptive use data

(9) Recycled water from WWTF in Delano applied to Agricultural Fields. Projections determined from UWMP and Adjusted 2010 and 2015 Demand and actual effluent volume data

(10) Native yield (0.15 AF/acre) over total acreage

(11) Native yield (0.30 AF/acre) over total acreage

(12) Storage Change determined by (12) = (6)+(9)+(10)-(7)-(8)

(13) Storage Change determined by (13) = (6)+(9)+(11)-(7)-(8)

Source: Historical Data KGA Water Supply Accounting, Rainfall Estimated, ITRC ET. Projected Data CVP Projection Model ".c" condition. City Data from Delano UWMP (2015), and City of McFarland General Plan Amendment EIR (2015)

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2.5.3 Current Water Budget

While the historical base period used in the previous section is consistent with the base period selected for the Subbasin groundwater model, it does not capture the current conditions within the District. Since 2015, projects and management actions have been implemented as part of the District's response to the 2006-2016 drought. The following section will describe the water budget components used to determine the water budget for SSJMUD under current conditions. Some of the water budget components developed in the historical water budgets are used in the current water budget.

2.5.3.1 Agricultural Demand

The average historical ET data from 2013 to 2015 (described in the previous section) is used in the "current conditions" water budget for SSJMUD. This shortened historical period is most representative of the current land use and crop types in the District's management areas. As with the historical water budget, ET for undeveloped land is assumed to net zero change in groundwater storage because it is assumed that the ET is balanced with precipitation. ET from urban land is also not counted in the calculation of agricultural demand because those lands are supplied by the urban groundwater pumping. The average of 2013 through 2015 ET is 120.7 TAF and is used in Table 2-20.

2.5.3.2 Urban Demand

Groundwater pumping data from 2009 to present for the cities of Delano and McFarland, were used to develop the current conditions water budget, as it closely reflects the current urban water use. The City of Delano currently pumps 8.1 TAF to meet its urban demand; the City of McFarland pumps 1.8 TAF.

2.5.3.3 Water Supply

The average current water supply conditions are based on the long-term average supply for the CVP. As with the historical water budgets, exchanges and transfers between SSJMUD and other districts are expected to be a net zero change in groundwater storage for the districts. Water that is "banked" is recognized as the 10% of leave behind water, the remainder of the water is considered temporary storage which is not included in the water accounting for the current conditions.

To account for subsurface inflow and runoff, SSJMUD is using the KGA range of 0.15 AF per acre to 0.30 AF per acre for the gross acreage of its jurisdictional area. In addition to the subsurface inflow and runoff and precipitation, the effluent from the Delano WWTP averages 3.7 TAF for beneficial reuse under current conditions.

As shown in Table 2-20, SSJMUD received an average surplus flow of 2.8 TAF under current conditions. The district has also taken advantage of available surplus supply made available to Friant contractors, bring this supply into the District or banking it in NKWSD for in-district delivery during dry periods. This has led to the current conditions

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water budget reflecting an average change in groundwater storage for SSJMUD that is net positive 6.3 TAF to 16.1 TAF over the assumed native inflow range of 0.15 AF per acre to 0.30 AF per acre. The addition of the City of Delano Spreading Grounds (in pilot phase), SSJMUD added 500 AFY of recharge capacity. This, in addition to the adoption of emergency drought measures by the cities, has led to the current conditions with projects in SSJMUD having a net positive change in groundwater storage of 6.9 TAF per year to 16.6 TAF per year over the assumed native inflow range.

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Table 2-20: SSJMUD Current Water Budget, in TAF

Data Type, Water Year and Hydrologic Condition (1)	Total Surface Inflow + (2)	Total Surface Outflow - (3)	Total Rainfall + (4)	Total ET (ITRC) - (5)	Δ Storage (Irrigated Lands) = (6)	City of Delano Demand - (7)	City of McFarland Demand - (8)	City of Delano Recycled Water + (9)	Native Inflow (0.15 AF/acre) + (10)	Native Inflow (0.30 AF/acre) + (11)	Δ Storage w NY and City Data (0.15 AF/acre) = (12)	Δ Storage w NY and City Data (0.30 AF/acre) = (13)
CVP Model Data Long-Term Average												
2015.c (Current)	104.8	-	18.8	120.7	2.8	8.1	1.8	3.7	9.8	19.5	6.3	16.1
2015.c (Current with Current Projects)	105.3	-	18.8	120.7	3.4	8.4	1.8	3.7	9.8	19.5	6.9	16.6

Notes:

(1) Data presented as average conditions based on CVP model data (1922-2003) as represented by a historical average condition by water year type

(2) Historical Data includes Deliveries brought in through FKC, CVP Model Data includes Sum of: Class 1, Class 2, Other, 16B, Recapture Class 1, Recapture Class 2

(3) Delivery to Kern Tulare

(4) Estimated 0.42 AF per acre over irrigated acreage (44,787 acres) (Rainfall over non-irrigated acreage assumed balanced by total ET)

(5) Historical is average 1993 to 2015 value, CVP Model Data uses Average of 2013 to 2015 over irrigated acreage (Rainfall over non-irrigated acreage assumed net zero with total ET)

(6) Determined by (6) = (2)+(4)-(3)-(5)

(7) Average Consumptive Demand of City of Delano based on actual consumptive use data

(8) Average Consumptive Demand of City of McFarland based on actual consumptive use data

(9) Recycled water from WWTF in Delano applied to Agricultural Fields, based on actual effluent volumes

(10) Native yield (0.15 AF/acre) over total acreage

(11) Native yield (0.30 AF/acre) over total acreage

(12) Storage Change determined by (12) = (6)+(9)+(10)-(7)-(8)

(13) Storage Change determined by (13) = (6)+(9)+(11)-(7)-(8)

Source: Historical Data KGA Water Supply Accounting, Rainfall Estimated, ITRC ET, Projected Data CVP Projection Model ".c" condition, City Data from Delano UWMP (2015), and City of McFarland General Plan Amendment EIR (2015)

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2.5.4 Projected Water Budget

A projected water budget is prepared to estimate a baseline condition of supply, demand, and plan implementations. This projected water budget accounts for conditions for 2030 and 2070, using data on projected available supplies, projected changes in demand due to changes in land use. The projected water budget, consistent with the Subbasin groundwater model, also accounts for climate change factors that affect the water budget inflow and outflow components. Projects and management actions, which are described in Section 5, are not accounted for in this baseline projected water budget.

2.5.4.1 Agricultural Demand

As shown in Section 2.2.3.7, land use has not varied greatly historically, as a result it was assumed that the crop demand will remain similar in the future. However, overall irrigated acreage will decrease as urban land use increases within the cities' limits and spheres of influence. For the purposes of this projected water budget, crop types within the District are assumed to remain the same. Current water demands for agriculture are based off the most recent crop demand (2013 to 2015 ITRC based ET) and have been adjusted to account for the climate change factors used in the Subbasin groundwater model.

The projected agricultural demand for average 2030 conditions is estimated to be 119.2 TAF. The projected agricultural demand for average 2070 conditions is estimated to be 125.0 TAF. The increase in ET is due to the irrigated acreage and crop types in the District remaining the mostly unchanged from 2030 to 2070. Agricultural to urban land use conversion is anticipated to be relatively small from 2030 to 2070.

2.5.4.2 Urban Demand

Urban water demand is expected to increase as shown in Table 2-21. These volumes are subject to further reduction, due to mandatory indoor water use reductions (described further in Section 5 of this plan).

Table 2-21: SSJMUD Projected Urban Demand, in TAF

City	2015*	2030	2070
Delano	8.1	11.5	21.5
McFarland	1.8	2.3	3.6
Total	9.9	14.8	25.1

* Current Average Production values

2.5.4.3 Water Supply

WWTP Effluent

As identified in the historical and current water budgets, the City of Delano's WWTP is anticipated to continue providing effluent for beneficial reuse. The estimated volumes are

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based on the population growth projections in each city's respective General Plans. The Delano WWTP is anticipated to provide 11.5 TAF of effluent for beneficial reuse in 2030; that volume is projected to increase to 21.5 TAF by 2070.

Table 2-22: Projected Effluent Volumes from Delano WWTP, in TAF

	2015 [1]	2030	2070
Groundwater Pumped	8.1	11.5	21.5
% of Supply	46%	43%	59%
Recycled	3.7	4.9	12.6

(1) Values updated to reflect actual city effluent volumes.

Precipitation

As described during the historical water budget estimation, precipitation for project water budget is also estimated as 0.42 AF per irrigated acre, with adjustments to account for the climate change factors used in the Subbasin groundwater model. These adjusted volumes are shown in Table 2-23.

CVP Water

Projected water supply from the CVP for SSJMUD is based on "Future Friant Supplies Model". This model estimated SSJMUD supplies from CVP based on Class 1, Class 2, Other, 16B, Recapture Class 1, and Recapture Class 2 categories. It is expected due to restriction, regulations, and climate change the Districts will receive a lower than historical amount of water from the CVP. City recycled water is expected to increase as shown in Table 2-23.

SSJMUD's other surface water supplies are assumed to net zero with the District demand over long term periods and are left out of the projected water budgets. SSJMUD, at its current baseline conditions, shows a positive storage in 2030 for the assumed native inflow range, adjusting for climate change factors used in the Subbasin groundwater model and accounting for reduction of irrigated acreage due to urban use conversion. At 0.15 AF per acre for 2030 conditions, SSJMUD has an estimated surplus of 400 AF. The District has an estimated surplus of 10.2 TAF for 2030 conditions at 0.30 AF per acre.

For 2070 conditions, SSJMUD shows a baseline of 8.6 TAF to 18.4 TAF net overdraft, when accounting for climate change factors used in the Subbasin groundwater model, CVP model data for Friant, and the cities' projected increase in urban demand. These volumes reflect a baseline condition which does not account for the proposed projects and management actions that are conceptual and yet to be implemented by the District.

The projects and management actions to be implemented to reach sustainability by 2040 are outlined in Section 5. The District will implement projects and management actions to reach sustainability and the projected impact of the projects and management actions are summarized in Section 5.

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Table 2-23: SSJMUD Projected Baseline Water Budget for 2030 and 2070, in TAF

Data Type, Water Year and Hydrologic Condition (1)	Total Surface Inflow + (2)	Total Surface Outflow - (3)	Total Rainfall + (4)	Total ET (ITRC) - (5)	Δ Storage (Irrigated Lands) = (6)	City of Delano Demand - (7)	City of McFarland Demand - (8)	City of Delano Recycled Water + (9)	Native Inflow (0.15 AF/acre) + (10)	Native Inflow (0.30 AF/acre) + (11)	Δ Storage w/NY and City Data (0.15 AF/acre) = (12)	Δ Storage w/NY and City Data (0.30 AF/acre) = (13)
CVP Model Data Long-Term Average												
2015.c (Current)	104.8	-	18.8	120.7	2.8	8.1	1.8	3.7	9.8	19.5	6.3	16.1
2015.c (Current with Current Projects)	105.3	-	18.8	120.7	3.4	8.1	1.8	3.7	9.8	19.5	6.9	16.6
2030.c	100.0	-	18.8	119.2	(0.4)	11.5	2.3	4.9	9.8	19.5	0.4	10.2
2070.c	90.8	-	18.6	125.0	(15.6)	21.5	3.6	12.6	9.8	19.5	(18.4)	(8.6)

Notes:

(1) Data presented average conditions along with projected future conditions based on CVP model data (1922-2003) as represented by a historical average condition, also by water year type, and 2030 and 2070 conditions

(2) Historical Data includes Deliveries brought in through FKC. CVP Model Data includes Sum of: Class 1, Class 2, Other, 16B, Recapture Class 1, Recapture Class 2

(3) Delivery to Kern Tulare

(4) Estimated 0.42 AF per acre over irrigated acreage (44,787 acres) (Rainfall over non-irrigated acreage assumed balanced by total ET)

(5) Historical is average 1993 to 2015 value. CVP Model Data uses Average of 2013 to 2015 over irrigated acreage (Rainfall over non-irrigated acreage assumed net zero with total ET)

(6) Determined by (6) = (2)+(4)-(3)-(5)

(7) Average Consumptive Demand of City of Delano based on 2015 General Plan population growth projections with actual consumptive use data

(8) Average Consumptive Demand of City of McFarland based on its EIR for the 2015 General Plan population growth projections with actual consumptive use data

(9) Recycled water from WWTF in Delano applied to Agricultural Fields. Projections determined from 2015 General Plan population growth and actual effluent data

(10) Native yield (0.15 AF/acre) over total acreage

(11) Native yield (0.30 AF/acre) over total acreage

(12) Storage Change determined by (12) = (6)+(9)+(10)-(7)-(8)

(13) Storage Change determined by (13) = (6)+(9)+(11)-(7)-(8)

Source: Historical Data KGA Water Supply Accounting, Rainfall Estimated, ITRC ET. Projected Data CVP Projection Model ".c" condition. City Data from Delano UWMP (2015), and City of McFarland General Plan Amendment EIR (2015)

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2.6 Existing Monitoring Programs

The purpose of this section is to identify and discuss existing water resource monitoring programs as required under §354.8(c). This section specifically focuses on water level and groundwater quality monitoring within the District's boundaries.

2.6.1 Existing Water Level Monitoring

The umbrella level GSP describes existing water level monitoring networks at a generalized regional scale. These networks include the Kern Fan Monitoring Committee (KFMC), Kern County Water Agency (KCWA) groundwater monitoring, and water level data reported to CASGEM. These regional networks benefit data collection and inform SSJMUD on water level changes occurring in the Subbasin. The umbrella level GSP provides details on the KFMC, KCWA, CASGEM networks, and an approximate number of wells and locations of monitoring throughout the Subbasin. This section focuses on groundwater monitoring at the local-level, and provides a brief description of the monitoring network, well types, well construction, participants in local monitoring, and figures with locations.

2.6.1.1 Groundwater Level Monitoring

SSJMUD uses water level monitoring data from supply wells in the district to report on local and regional groundwater level conditions. Historically, water levels in supply wells have been measured twice a year, in both the "spring" and "fall", with the timing of these measurements intended to coincide with the annual water level high and low, respectively.

The district uses 66 supply wells for monitoring purposes. These locations of these wells are shown on Figure 1 of Appendix I. The district coordinates with the private well landowners for well access.

The wells are classified as interim monitoring wells for SGMA purposes because they are actively used as water supply wells for domestic and agricultural use. As such, there are limitations on the ability to collect data when they are in operation, the wells are not designed for monitoring, and well construction data are limited.

In the future, improvements to the District's infrastructure will likely include completion of dedicated monitoring wells to replace interim wells in the monitoring network. The locations of these wells are to be determined as part of the development of the District's management area plan.

2.6.1.2 Semitropic Water Storage District Water Banking Project Monitoring Committee

In addition to local monitoring, SSJMUD also participated in the monitoring committee for the Semitropic Water Storage District Water Banking Project. The Semitropic Water Banking Monitoring Committee is made up of Semitropic Water Storage District,

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Southern San Joaquin Municipal Utility District, Cawelo Water District, Shafter-Wasco Irrigation District, North Kern Water Storage District, Rosedale-Rio Bravo Water Storage District, and Buena Vista Water Storage District, with KCWA and Department of Water Resources working alongside the monitoring committee. The committee submits biennial monitoring reports which first began in 1995 and have continued to the present. The reports include groundwater elevation maps, discussion of groundwater flow trends, groundwater quality, land subsidence, and time series data on hydrographs. A summary is presented in Table 2-24 below.

Table 2-24: Summary of Monitoring Committee

Monitoring Network	Number of Wells Monitored	Date Range	Source
SWSD Water Banking Monitoring Committee	29 SWSD monitoring wells ~ 65 supply wells SWSD, ~53 wells NKWSD, ~8 wells in BVWSD, ~ 11 wells in SWID, a few wells RRBWSD, and a few in SSJMUD	1995 to present	Biennial Groundwater Monitoring Report for the Semitropic Water Storage District Water Banking Project.

Locations of wells in the monitoring network are included in the figure in Appendix I.

The benefit of the monitoring committee is in coordination of water level data collection and reporting, which provides more understanding of water levels at the boundaries between SSJMUD and neighboring districts. Data that are a result of this coordination, including groundwater contour maps, hydrographs, and subsidence data, are presented in the Groundwater Conditions section of this report.

Many of the wells in the committee's monitoring network are included in the future monitoring network for this Groundwater Sustainability Plan.

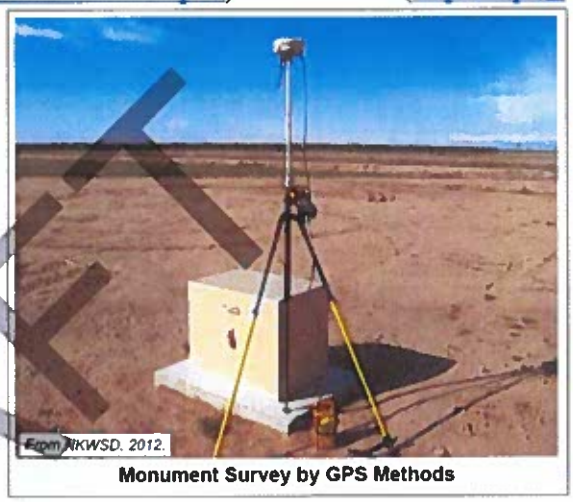
2.6.2 Existing Land Subsidence Monitoring

The umbrella level GSP describes existing land subsidence monitoring networks at a generalized regional scale. These networks include Borehole Extensometers, Continuous GPS (CGPS), Leveling Surveys, and Remote Sensing. These regional networks benefit data collection and inform SWSD on land subsidence changes occurring in the Subbasin. The KGA GSP and the Groundwater Conditions section of this report provide details on these networks and status of data usability and collection. This section focuses on land subsidence monitoring at the local-level. Details on data availability and locations are provided below.

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2.6.2.1 Local Land Subsidence Monitoring

As a part of the Semitropic Water Banking Monitoring Committee, land subsidence has been monitored and data reported in the biennial reports prepared by Schmidt and Associates. The monitoring network includes SWSD's borehole extensometer, as well as nearby continuous GPS points P545, P563, and P564 (Table 2-18). In addition, P565 near the Delano Airport is also monitored through UNAVCO and Scripps Orbit and Permanent Array Center (SOPAC) (Table 2-18). All of these GPS stations are maintained, and data are processed and reported, by affiliates of UNAVCO (https://www.unavco.org/instrumentation/networks/status/pbo) and SOPAC (http://sopac-csrc.ucsd.edu/index.php/sopac/). A location map of the existing land subsidence monitoring network is included in Appendix I.



Monument Survey by GPS Methods

Figure 2-35: Monument Survey by GPS Methods

Details including data for the CGPS points and extensometer, and benefits and frequency of the data, are further discussed in the Groundwater Conditions of this report. In general, CGPS points record daily to sub-daily frequency, while the extensometer is currently set up for manual measurements that require periodic visits to record data values. While CGPS points record near continuous data, their limitations are in that they measure land surface deformation referenced to a datum but cannot measure discrete intervals in the subsurface. On the other hand, the borehole extensometer can measure a discrete interval from the bottom of the extensometer to ground surface, thus providing a more accurate approximation of compaction in the intervals subject to groundwater pumping.

Details of the data collected from these monuments is included in the Groundwater Conditions section of this report.

2.6.2.2 USBR Friant-Kern Canal

Recently USBR and Friant Water Authority have worked together to collect elevation survey data along the Friant-Kern Canal from Tulare County to Kern County.

Surveys were taken at construction benchmark points that were measured during construction in the 1940s and 1950s. SSJMUD is coordinating with USBR to consider future monitoring at these points along the canal within the district. These points are listed as mile postings along the canal (Table 2-18).

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2.6.2.3 Remote Sensing Land Subsidence Monitoring

In addition to CGPS and level surveying along infrastructure such as the Friant-Kern Canal, NASA and DWR have collected remote sensing data (INSAR and UAVSAR) on a regional scale to better understand the lateral and temporal extent of subsidence within the study area. The methodology and approach for collecting and processing the data has varied over the last decade as refinements have been made. NASA and DWR are working together to field calibrate these remote sensing data with CGPS points to better understand the quantitative estimates of land subsidence that have been reported.

The existing monitoring data are available for some date ranges and therefore are discussed further in the Groundwater Conditions of this report. In addition, the umbrella level GSP also provides details on INSAR and UAVSAR reporting and availability. As remote sensing data continue to be available, it will be used for the monitoring network of this management area plan.

2.6.2.4 Summary Land Subsidence Monitoring

Table 2-18 below shows the current available land subsidence monitoring for the study area.

Table 2-17: Summary of Land Subsidence Monitoring in Study Area

Type	Stations	Range of Available Data	Source
Continuous GPS Stations	P544, P545, P563, P564, P565	Varies. 2000 to present 2005 to present	UNAVCO PBS www.unavco.org Access data from: Instrumentation > Network Monitoring > Plate Boundary Observatory (PBO).
InSAR / UAVSAR	Remote Satellite Imagery	Recent. Range of freely accessible data: 2007 to 2011 2014 to present	Areal extent varies depending on dataset. Not always extensive across the Subbasin. Post-processed data available from (Farr, et. al., 2016), JPL, and USGS.
Survey Monuments	MP-116.94, MP-120, MP-124, MP-127,	1959-2017, 2017-present	USBR, Friant-Kern Canal. (Coverage: SSJMUD and Tulare).

2.6.3 Existing Groundwater Quality Monitoring

SSJMUD does not directly monitor groundwater quality in its management area. However, it uses the data collected by the Public Water systems (PWS) within its District boundary to monitor the groundwater quality. A summary of each of the Districts' local and regional efforts programs are discussed in this section.

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Groundwater quality in the District is currently monitored by a network of domestic wells. Table 2-19 summarizes the types of monitoring program implemented within the District.

Table 2-18: Types of Monitoring Program Implemented within the District

Well Type	Number of Wells	Monitoring Program	
		AB 3030	Title 22
Public Water system Wells	24		X

The monitoring programs previously described are implemented through sampling a combination of the District's network of wells. This network is described in detail below.

2.6.3.1 SSJMUD's Water Quality Monitoring Program

As discussed earlier, SSJMUD does not directly monitor groundwater quality in its management area. However, it uses the data collected by the municipalities within its District boundary to monitor the groundwater quality. The public water systems within SSJMUD are included in Table 2-20 below.

2.6.3.2 Kern County Subbasin Water Quality Monitoring Efforts

SSJMUD, with the objective of identifying and implementing specific programs as needed to reflect changing conditions in the basin, established a Groundwater Monitoring Committee that includes Semitropic W.S.D (as the lead agency), and five other neighboring water districts. The KCWA and DWR are interested parties and periodically participate in the Committee activities. One of the committee's key objectives is to control degradation of groundwater quality and enhance quality where practicable (SWSD GWMP, 2003). Since its inception in 1994, this committee has been preparing a biennial monitoring report that provides a comprehensive study of the underlying groundwater with the objective of identifying and implementing specific programs as needed to reflect changing conditions in the basin. The biennial report characterizes the groundwater quality based on the collected data from Semitropic's monitoring network, and the five neighboring water districts.

Additionally, the District is an active member of multiple regional groundwater quality monitoring programs. These programs are briefly described below. Groundwater quality data from these programs will be used by the District for SGMA monitoring purposes.

2.6.3.3 Irrigated Lands Regulatory Program

The Irrigated Lands Regulatory Program (ILRP) was initiated in 2003 with a focus on protecting surface waters; groundwater regulations were added in 2012. The Kern River Watershed Coalition Authority (KRWCA) implements the ILRP program in the

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Subbasin. Data collected and reported as a part of ILRP are provided to the SWRCB and are available in the GeoTracker database for download and use. The KRWCA's primary group is made up of 10-member agencies representing approximately 1.5M acres of irrigated land, out of which 4% of the irrigated acreage is under the district's jurisdiction.

2.6.3.4 California Drinking Water Information System Database (SDWIS)

Routine water quality monitoring data is also available from the eight Public Water Systems (PWS) within SSJMUD boundaries. These systems are required to routinely sample for Title 22 regulated constituents. These water systems were identified through the Groundwater Ambient Monitoring and Assessment (GAMA) database. Water quality data is available through SDWIS. This program provides data for an additional 12 wells. Table 2-20 summarizes the public water systems identified within SSJMUD boundaries.

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Table 2-19: Public Water Systems within SSJMUD

Water System Number	Water System Name	District	Type	# Connections	Population Served	Service Area	# Wells
CA1500518	Agbayani Village Water System	SSJMUD	C	5	NT=12; R=26	Residential	1 well
CA5400810	Akal Travel Plaza	SSJMUD	NC	3	200	Restaurant	1 Well
CA5403022	Aptco Llc	SSJMUD	NTNC	6	150	Industrial/Agricultural	1 Well
CA1510013	City of McFarland	SSJMUD	C	2804	15105	Residential	3 Wells
CA1510005	City of Delano	SSJMUD	C	9544	56623	Residential	13 wells
CA1503623	Jakov Dulcich and Sons	SSJMUD	NC	1	40	Industrial/Agricultural	1 well
CA1504002	Jasmine Vineyards	SSJMUD	NC	1	NT=6; T=75	Other	1 Well
CA1504007	Jasmine Vineyards Cold Storage	SSJMUD	NTNC	1	27	Transient Area	1 well
CA1502319	Kern Co P&R-Lake Woollomes Water System	SSJMUD	NC	4	R=1; T=400	Recreation Area	1 Well
CA1510802	Kern Valley State Prison	SSJMUD	C	2249	5300	Institution	2 wells
CA1503653	M & L Cold Storage, LLC	SSJMUD	NTNC	1	50	Industrial/Agricultural	1 well
CA1504005	M & L OFFICE	SSJMUD	NTNC	1	113	Other Non-Transient Area	1 well
CA1503374	Marko Zaninovich, Inc - Pond	SSJMUD	NTNC	12	30	Industrial/Agricultural	1 well
CA5402041	Penny Wise Motel	SSJMUD	NC	3	27	Hotel	1 Well
CA1502620	Pond Mutual	SSJMUD	C	18	48	Residential	1 Well
CA1502221	Pond School Water System	SSJMUD	NTNC	1	250	School	1 Well
CA5400964	Sierra Vista Assn	SSJMUD	C	13	44	Residential	1 Well
CA1502581	Sunview Cold Storage Water System	SSJMUD	NTNC	4	130	Industrial/Agricultural	1 well

*C = Community water system
NTNC = Nontransient non-community water system
TNC = Transient non-community water system
NT = Nontransient
T = Transient
R = Residential

2.7 Existing Water Resource Programs

This section identifies and discusses current water resources programs the District participates in. Expanding off Section 1.4.3, this section provides an in-depth overview of each program and District involvement.

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2.7.1 Management Plans

The State of California has pre-SGMA programs for the management of groundwater supply and quality. These programs are managed at various levels of government by existing public agencies, either individually or collaboratively with neighboring agencies within the same groundwater basin. The following section provides an overview of these programs and the elements addressed in each.

2.7.1.1 Groundwater Management Plans

In 1992, the State of California passed the Groundwater Management Act (AB 3030). This legislation provided guidelines for the agencies and districts to provide planned and coordinated monitoring, operation, and administration of groundwater basins with the goal of long-term sustainability. There are several types of GMPs.

Pre-SB 1938 Plans:

These plans, typically adopted before 2002, could be prepared by a local agency in a Bulletin 118-desginated basin on a voluntary basis. The voluntary components of these plans include:

- The control of saline water intrusion.
- Identification and management of wellhead protection areas and recharge areas.
- Regulation of the migration of contaminated groundwater.
- The administration of a well abandonment and well destruction program.
- Mitigation of conditions of overdraft.
- Replenishment of groundwater extracted by water producers.
- Monitoring of groundwater levels and storage.
- Facilitating conjunctive use operations.
- Identification of well construction policies.
- The construction and operation by the local agency of groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects.
- The development of relationships with state and federal regulatory agencies.
- The review of land use plans and coordination with land use planning agencies to assess activities which create a reasonable risk of groundwater contamination.

SB 1938 Plans:

These plans were generally adopted during or after 2002, incorporating the elements of the Pre-SB 1938 Plans. With the passage of SB 1938, the following components were required as part of any GMP:

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- Basin Management Objectives: The GMP shall include Basin Management Objectives relating to the monitoring and management of groundwater levels within the groundwater basin, groundwater quality degradation, inelastic land surface subsidence, and changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin.
- Agency Cooperation: The local agency shall prepare a plan to involve other agencies that enables the local agency to work cooperatively with other public entities whose service area or boundary overlies the groundwater basin.
- Mapping: The local agency shall prepare a map that details the area of the groundwater basin, as defined in DWR's Bulletin 118, and the area of the local agency, that will be subject to the GMP, as well as the boundaries of other local agencies that overlie the basin in which the agency is developing a GMP.
- Monitoring Protocols: The local agency shall adopt monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic surface subsidence (in basins for which subsidence has been identified as a potential problem), and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin.
- Located outside Bulletin 118 Groundwater Basins: Plans located outside DWR Bulletin 118 alluvial groundwater basins will incorporate the above components and shall use geologic and hydrologic principles appropriate to those areas.

AB 359 Plans:

When AB 359 was enacted in 2013, it required additional technical components related to groundwater recharge areas and modification to several of the existing GMP adoption procedures in place as part of SB 1938. The additional technical components are as follows:

- The groundwater projects to which these requirements apply include projects that are part of an integrated regional water management program or plan.
- Groundwater projects require a description of how recharge areas identified in the plan substantially contribute to the replenishment of the groundwater basin and a map identifying the recharge areas, as defined, for the groundwater basin to be included in a GMP for purposes of the state funding requirements.
- Require the local agency to provide the map of the recharge areas to local planning agencies and notify the department and other interested persons when a map is submitted to those local planning agencies.

SSJMUD adopted a Pre-SB 1938 GMP in 1993. This GMP was also included in SSJMUD's Agricultural Water Management Plan in 2012.

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2.7.1.2 Agricultural Water Management Plans

The Water Conservation Act of 2009 (SB X7-7) requires that agricultural water suppliers serving more than 25,000 irrigated acres adopt and submit to DWR an Agricultural Water Management Plan (AWMP). These plans include reporting on implementation status of Efficient Water Management Practices (EWMPs) within the supplier's service area. Areas which are served by recycled water deliveries only are excluded from the total amount of irrigated acreage. In the Emergency Drought Measures enacted by the State of California in 2015, agricultural water suppliers serving 10,000 irrigated acres or more were required to prepare and submit an AWMP to DWR. The Emergency Drought Measures also included requirements for information beyond the requirements of SB X7-7. SSJMUD prepared its first draft of its AWMP in 2010; the final draft was submitted to the US Bureau of Reclamation and approved in May 2012.

2.7.1.3 Urban Water Management Plans

The Urban Water Management Planning Act requires that urban water suppliers with a usage of over 3,000 AFY or that serve more than 3,000 urban connections must adopt an Urban Water Management Plan (UWMP). This plan is to ensure that the urban water supplier adequate addresses water supplies for existing and future demands. These plans were first required in 2005, with updates to be prepared and submitted by urban water suppliers every five (5) years. Based upon its historic and current water usage of less than 3,000 AFY, the City of McFarland is not required to prepare and implement a UWMP. The City of Delano, however, prepared and submitted its 2010 UWMP in 2011, with a subsequent update prepared in 2015.

2.7.1.4 Integrated Regional Water Management Plans

In 2002, the Regional Water Management Planning Act (SB 1672) created the Integrated Regional Water Management (IRWM) Program. The IRWM Program is used as a collaborative effort to identify and implement water management solutions on a regional scale that increase regional self-reliance, reduce conflict between agencies and users, and manage water to concurrently achieve social, environmental, and economic objectives. By collaborating on projects, participants in the IRWM Program can provide these benefits and meet their water supply and quality goals. In the Kern County Subbasin, there are two IRWM Plans: the Poso Creek IRWM Plan and the Kern County IRWM Plan. SSJMUD is a participant in the Poso Creek IRWM Plan, which was adopted in 2007.

2.7.1.5 Irrigated Lands Regulatory Program

The Tulare Lake Basin General Order (Order R5-2013-0120) was passed by the RWQCB in 2006. This order requires that any irrigated land having the potential to discharge to surface water or groundwater must comply with the requirements set by the RWQCB. Compliance includes membership in a Coalition or obtaining coverage through an

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Individual Order from the RWQCB. SSJMUD is a member of the Kern River Watershed Coalition Authority, which was formed in 2011.

2.7.1.6 Groundwater Export Ordinance

Kern County adopted a groundwater export ordinance in 1998, which requires a Conditional Use Permit (CUP) for export of water to areas both outside the County and within watershed areas of underlying aquifers in the County. The ordinance applies only to the southeastern drainage of the Sierra Nevada and Tehachapi mountains in the South Lahonten Hydrologic Region in eastern Kern County.

2.7.1.7 Title 22 Drinking Water Program

The Division of Drinking Water regulates public drinking water systems, which include municipal and state small water systems. In addition to the cities of Delano and McFarland, there are several state small systems and multi-parcel/multi-connection systems in SSJMUD's jurisdiction. These systems are required to comply with the standards set forth in Title 22 of the California Code of Regulations. For single parcel/single-connection systems, Kern County Environmental Health Services provides regulation and oversight to meet the requirements of Title 22.

2.7.2 Conjunctive Use Programs

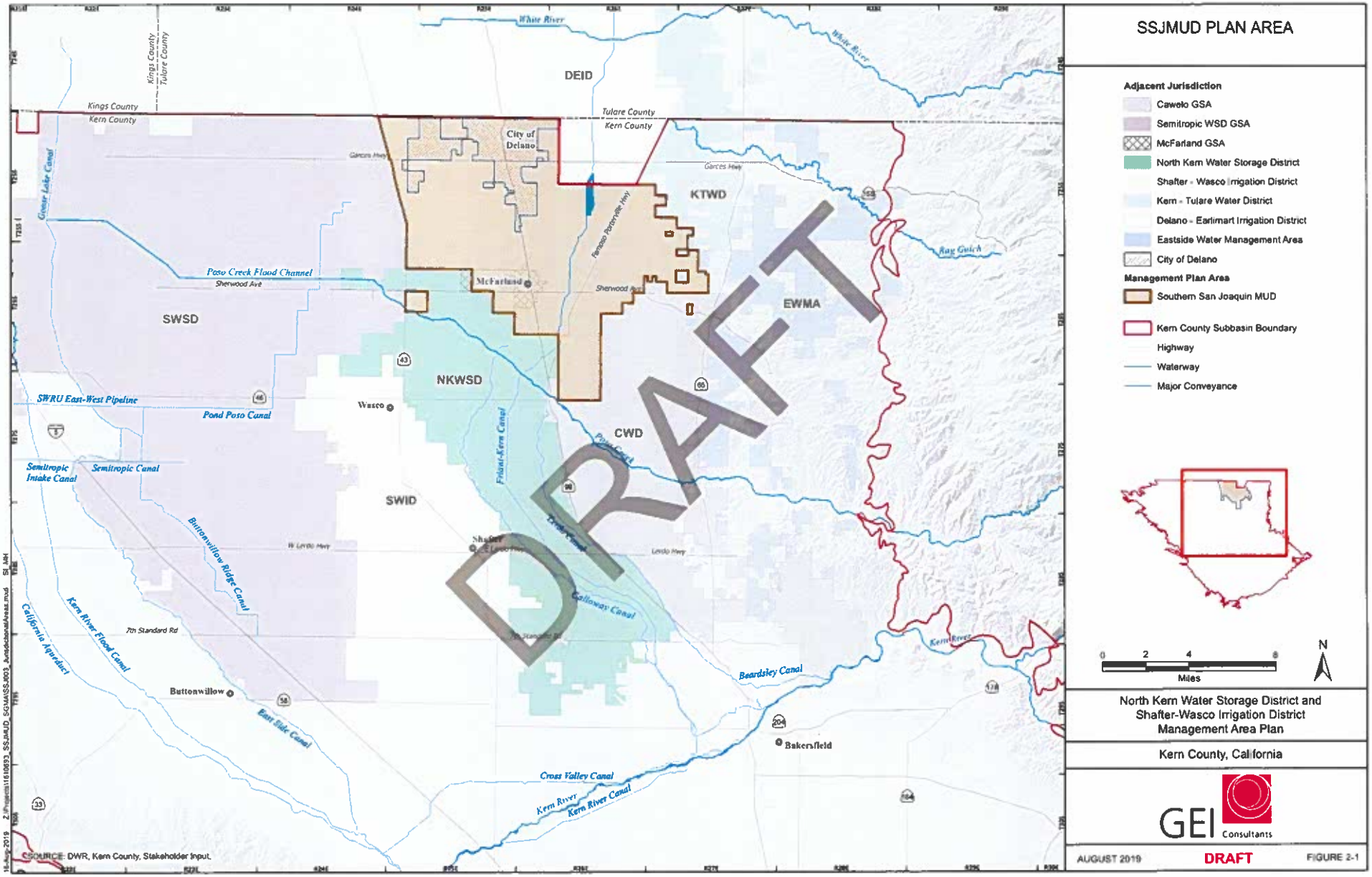
Conjunctive use or "the coordinated use of surface water and groundwater" has been used for many years in Kern County, for the benefit of water users, to allow for flexibility in the way water is delivered, whether climatic conditions allow for imported surface water, or if groundwater is needed in any given year. Conjunctive use is further described by the Water Education Foundation with the following: "In its passive form, also called in-lieu conjunctive use, surface water is used in wet years and groundwater is used in dry years. In active conjunctive use, surface water is directly injected into aquifers and wells to be used as needed as part of groundwater banking" (Water Education Foundation, 2019).

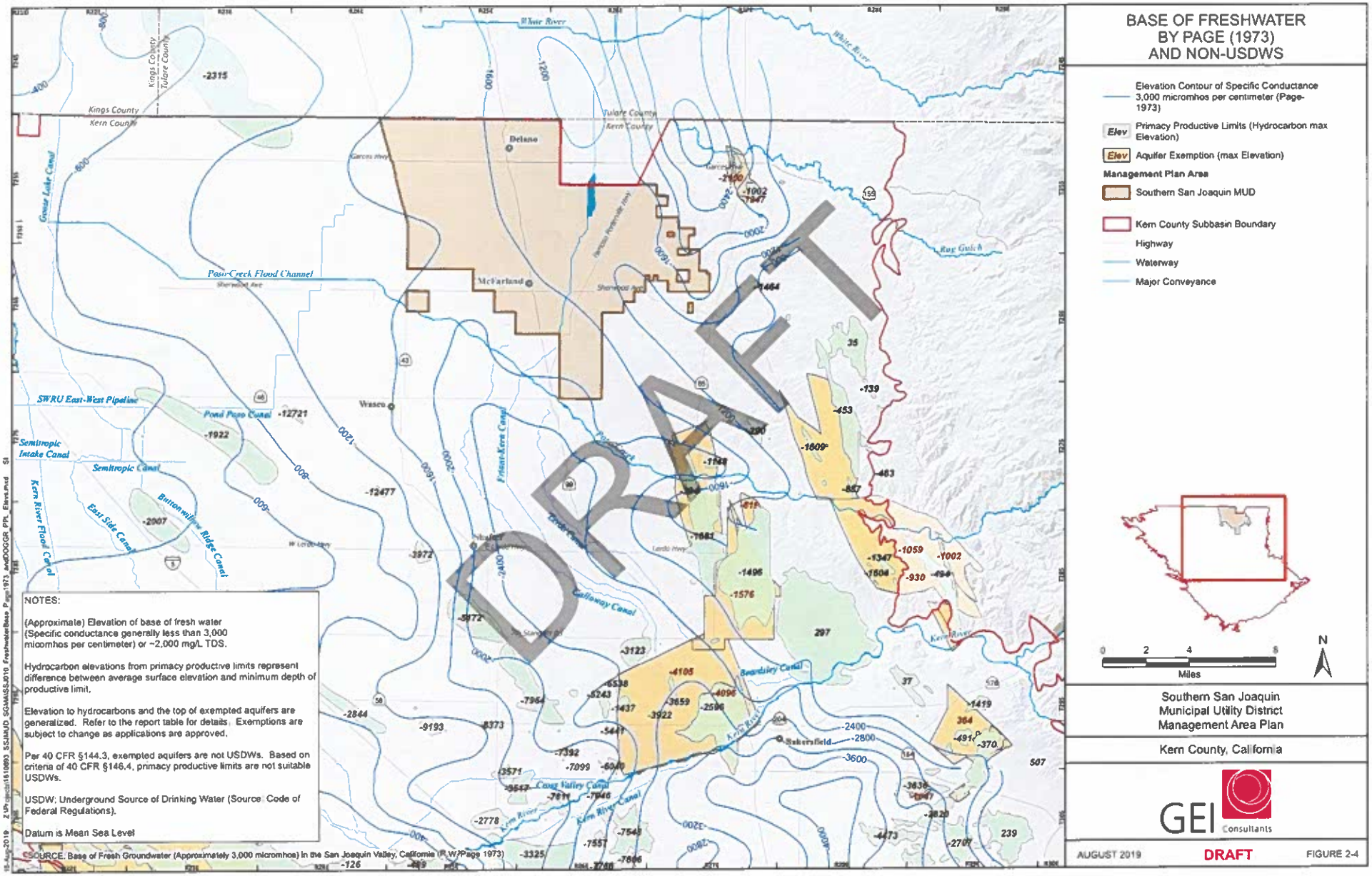
SSJMUD has participated in conjunctive use programs, for both in-lieu and direct recharge banking activities to enhance the flexibility of water supplies to meet the water demands of SSJMUD stakeholders.

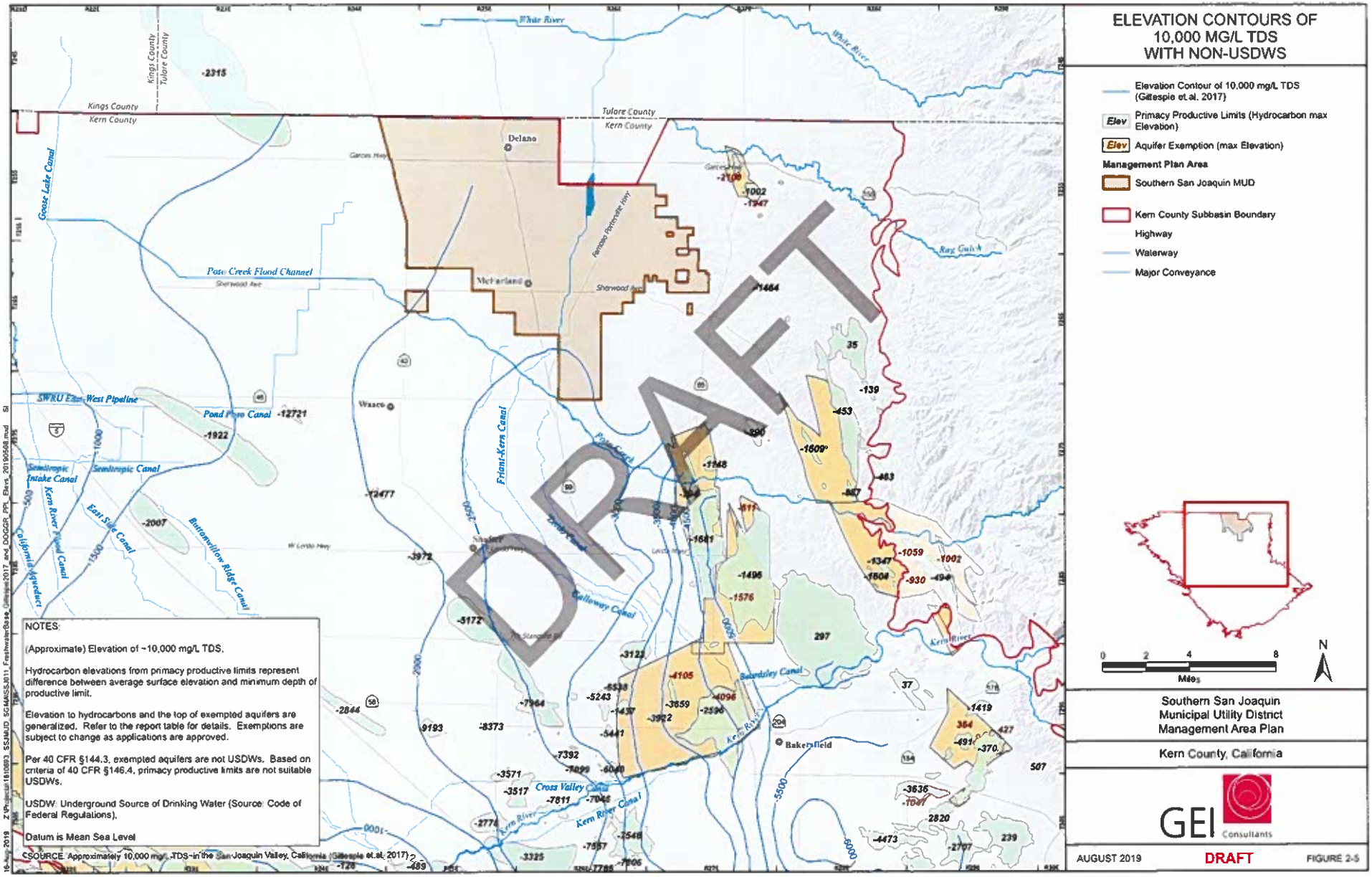
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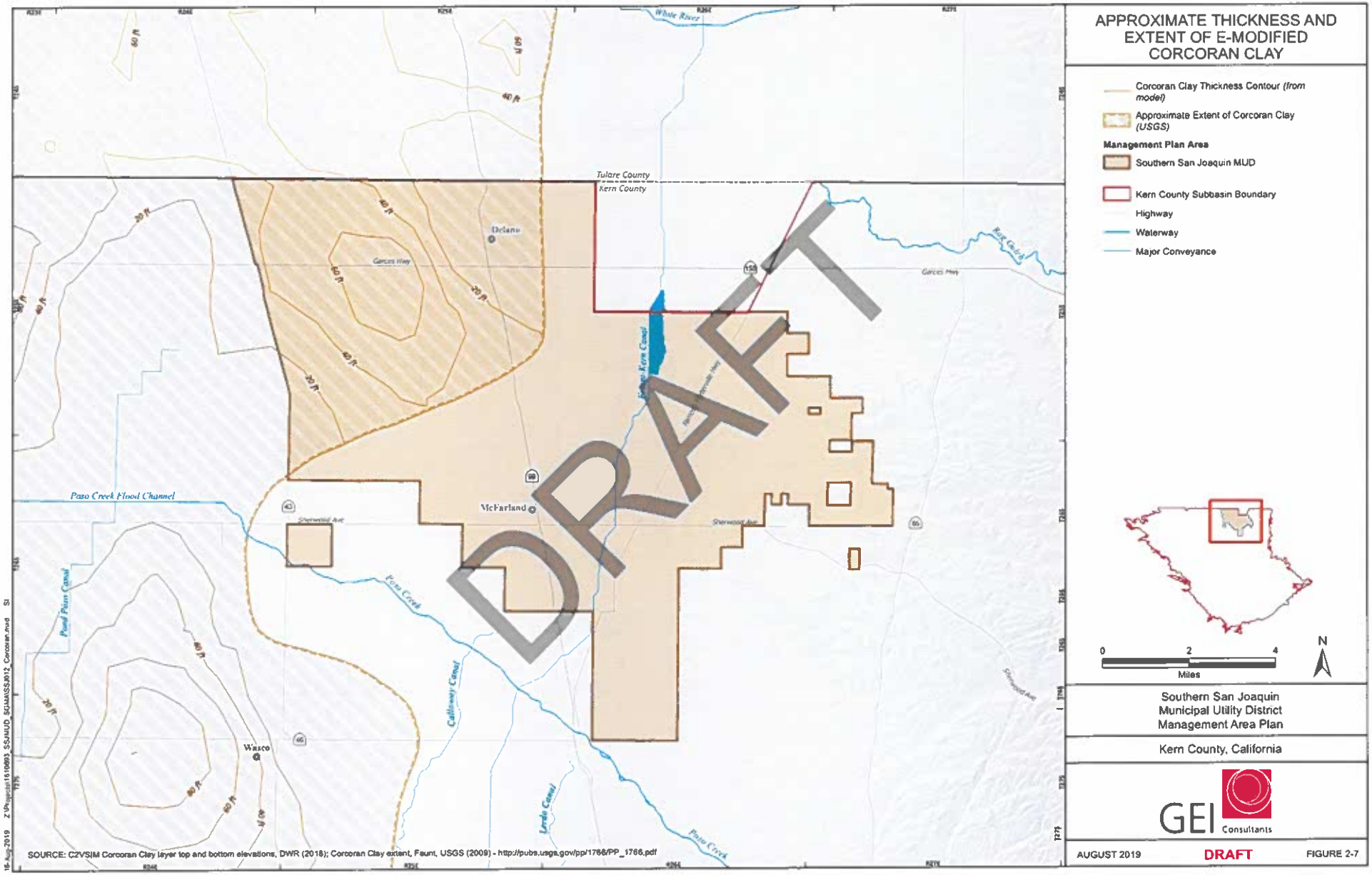
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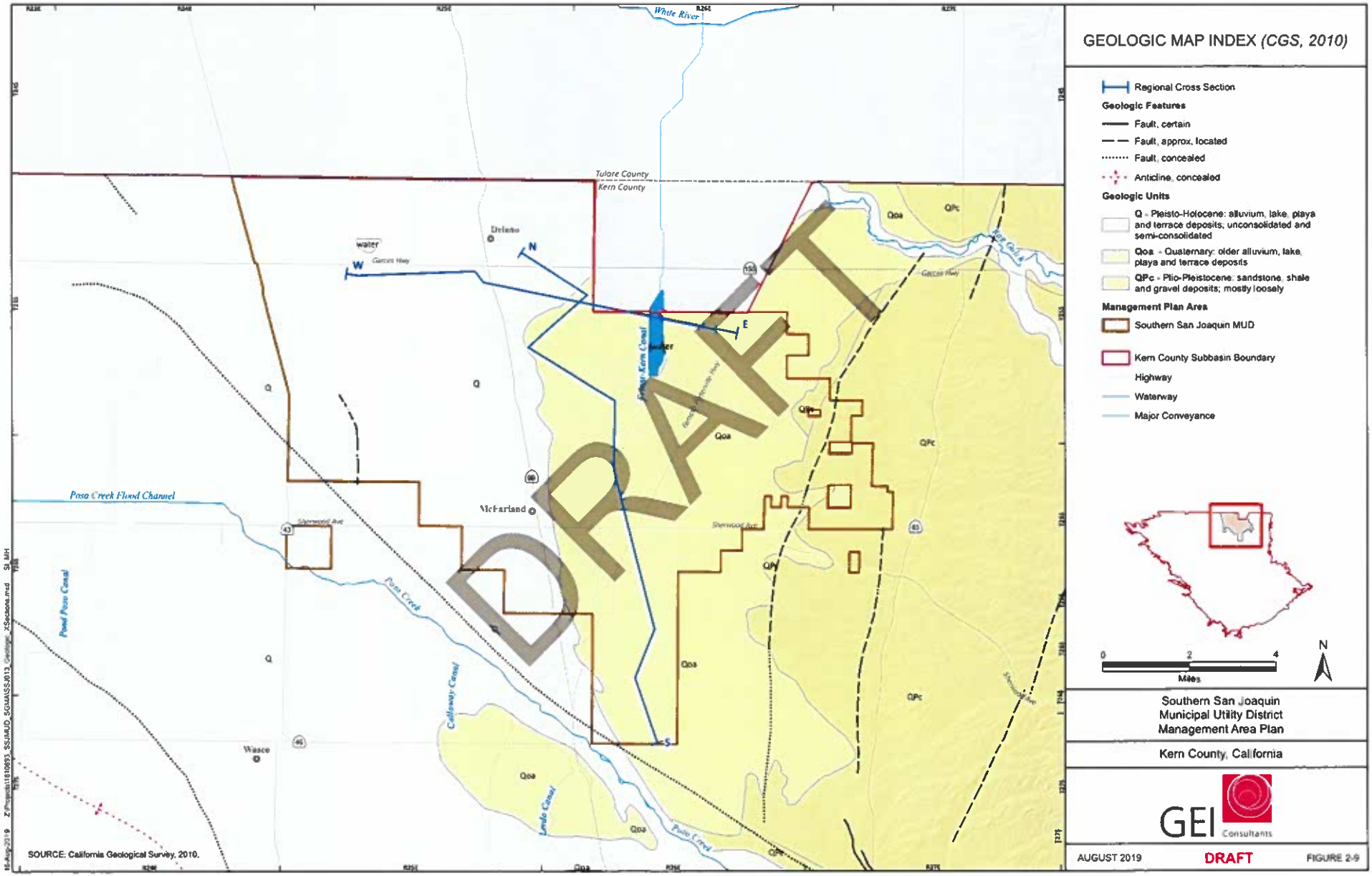
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SSJMUD PLAN AREA
Adjacent Jurisdiction
Cawelo GSA
Semitropic WSD GSA
McFarland GSA
North Kern Water Storage District
Shafter - Wasco Irrigation District
Kern - Tulare Water District
Delano - Earlimart Irrigation District
Eastside Water Management Area
City of Delano
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
DRAFT
DEID
KTWD
EWMA
SWSD
NKWSD
CWD
SWID
City of Delano
McFarland
Wasco
Shafter
Buttonwillow
Bakersfield
White River
Kings County
Tulare County
Kern County
Poso Creek Flood Channel
SWRU East-West Pipeline
Pond Poso Canal
Semitropic Intake Canal
Semitropic Canal
Buttonwillow Ridge Canal
California Aqueduct
Kern River Flood Canal
East Side Canal
Friant-Kern Canal
Calloway Canal
Beardsley Canal
Cross Valley Canal
Kern River
Kern River Canal
Rag Gulch
Famoso Porterville Hwy
Garces Hwy
Sherwood Ave
W Lerdo Hwy
Lerdo Hwy
7th Standard Rd
0 2 4 8
Miles
N
North Kern Water Storage District and Shafter-Wasco Irrigation District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 2-1
SOURCE: DWR, Kern County, Stakeholder Input.


BASE OF FRESHWATER
BY PAGE (1973)
AND NON-USDWS
Elevation Contour of Specific Conductance 3,000 micromhos per centimeter (Page-1973)
Elev Primacy Productive Limits (Hydrocarbon max Elevation)
Elev Aquifer Exemption (max Elevation)
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
DRAFT
NOTES:
(Approximate) Elevation of base of fresh water (Specific conductance generally less than 3,000 micomhos per centimeter) or ~2,000 mg/L TDS.
Hydrocarbon elevations from primacy productive limits represent difference between average surface elevation and minimum depth of productive limit.
Elevation to hydrocarbons and the top of exempted aquifers are generalized. Refer to the report table for details. Exemptions are subject to change as applications are approved.
Per 40 CFR §144.3, exempted aquifers are not USDWs. Based on criteria of 40 CFR §146.4, primacy productive limits are not suitable USDWs.
USDW: Underground Source of Drinking Water (Source: Code of Federal Regulations).
Datum is Mean Sea Level
SOURCE: Base of Fresh Groundwater (Approximately 3,000 micromhos) in the San Joaquin Valley, California (R.W.Page 1973)
0 2 4 8
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
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FIGURE 2-4


ELEVATION CONTOURS OF
10,000 MG/L TDS
WITH NON-USDWS
Elevation Contour of 10,000 mg/L TDS (Gillespie et al. 2017)
Primacy Productive Limits (Hydrocarbon max Elevation)
Aquifer Exemption (max Elevation)
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
DRAFT
NOTES:
(Approximate) Elevation of ~10,000 mg/L TDS.
Hydrocarbon elevations from primacy productive limits represent difference between average surface elevation and minimum depth of productive limit.
Elevation to hydrocarbons and the top of exempted aquifers are generalized. Refer to the report table for details. Exemptions are subject to change as applications are approved.
Per 40 CFR §144.3, exempted aquifers are not USDWs. Based on criteria of 40 CFR §146.4, primacy productive limits are not suitable USDWs.
USDW: Underground Source of Drinking Water (Source: Code of Federal Regulations).
Datum is Mean Sea Level
SOURCE: Approximately 10,000 mg/L TDS in the San Joaquin Valley, California (Gillespie et al. 2017)
0 2 4 8
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
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FIGURE 2-5


APPROXIMATE THICKNESS AND EXTENT OF E-MODIFIED CORCORAN CLAY
Corcoran Clay Thickness Contour (from model)
Approximate Extent of Corcoran Clay (USGS)
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
DRAFT
Tulare County
Kern County
White River
Delano
McFarland
Wasco
Garces Hwy
Sherwood Ave
Poso Creek Flood Channel
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
Kern Canal
Kern Canal
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
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FIGURE 2-7
SOURCE: CZVSIM Corcoran Clay layer top and bottom elevations, DWR (2018); Corcoran Clay extent, Faunt, USGS (2009) - http://pubs.usgs.gov/pp/1766/PP_1766.pdf



GEOLOGIC MAP INDEX *(CGS, 2010)*

- Regional Cross Section

Geologic Features

- Fault, certain
- Fault, approx. located
- Fault, concealed
- Anticline, concealed

Geologic Units

- Q - Pleisto-Holocene: alluvium, lake, playa and terrace deposits; unconsolidated and semi-consolidated
- Qoa - Quaternary: older alluvium, lake, playas and terrace deposits
- QPc - Plio-Pleistocene: sandstone, shale and gravel deposits; mostly loosely

Management Plan Area

- Southern San Joaquin MUD
- Kern County Subbasin Boundary
- Highway
- Waterway
- Major Conveyance

0 2 4 Miles

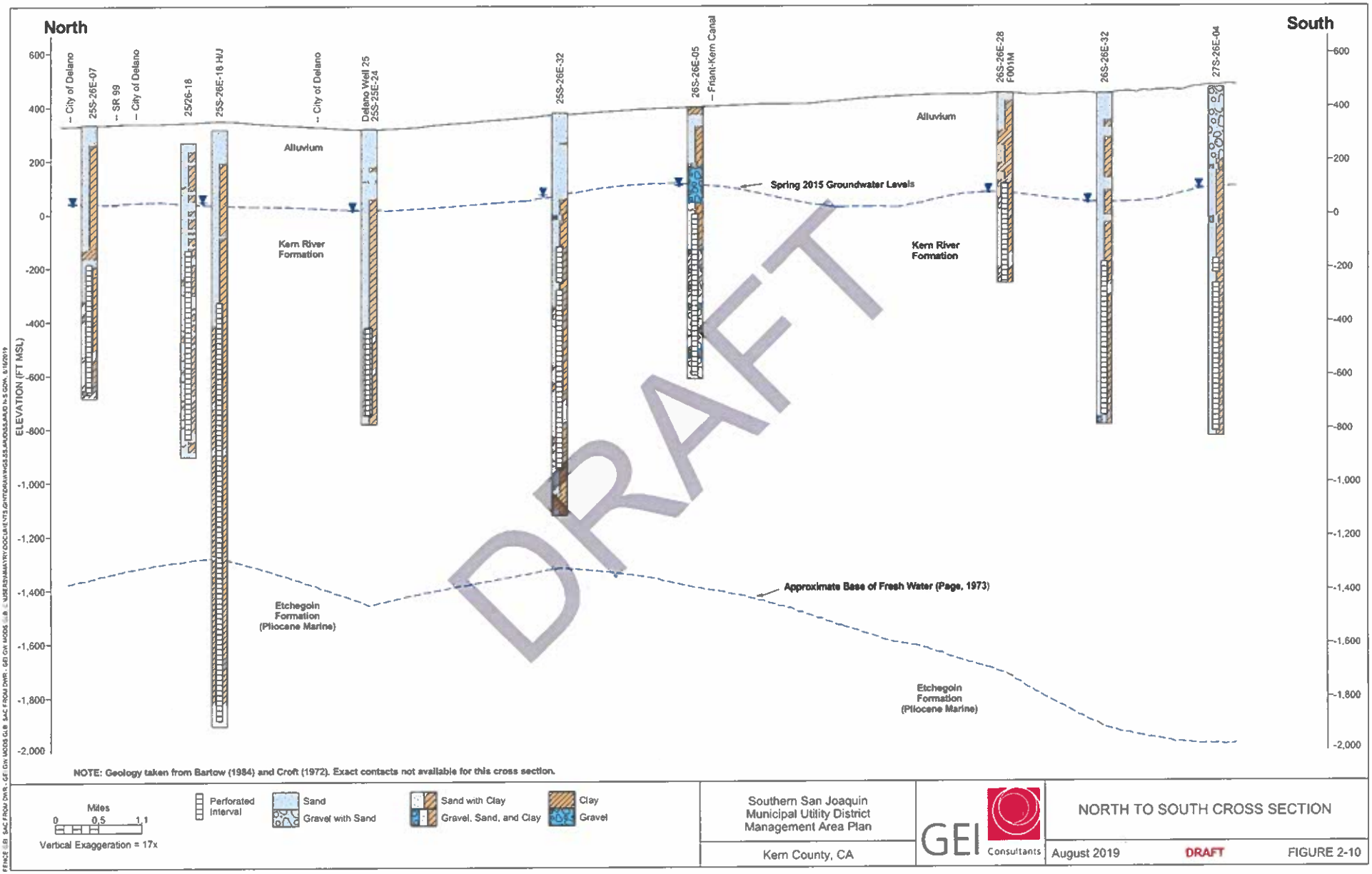
N

Southern San Joaquin Municipal Utility District Management Area Plan

Kern County, California

GEI Consultants

AUGUST 2019 **DRAFT** FIGURE 2-9



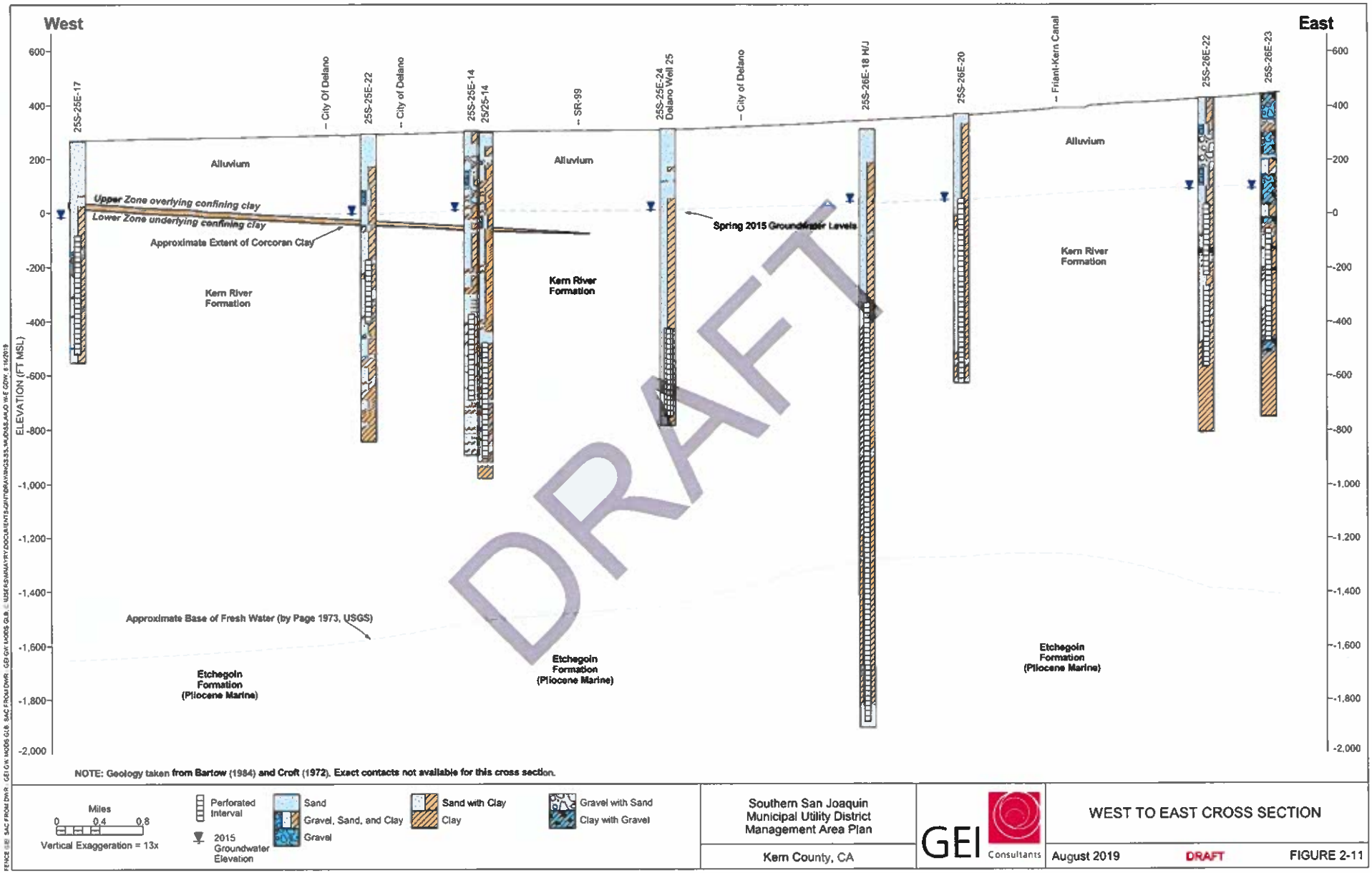
Southern San Joaquin Municipal Utility District Management Area Plan

Kern County, CA

GEI Consultants

NORTH TO SOUTH CROSS SECTION

August 2019 DRAFT FIGURE 2-10



NOTE: Geology taken from Bartow (1984) and Croft (1972). Exact contacts not available for this cross section.

Miles
0 0.4 0.8
Vertical Exaggeration = 13x

Perforated Interval
2015 Groundwater Elevation

Sand
Gravel, Sand, and Clay
Gravel
Sand with Clay
Clay
Gravel with Sand
Clay with Gravel

Southern San Joaquin Municipal Utility District Management Area Plan

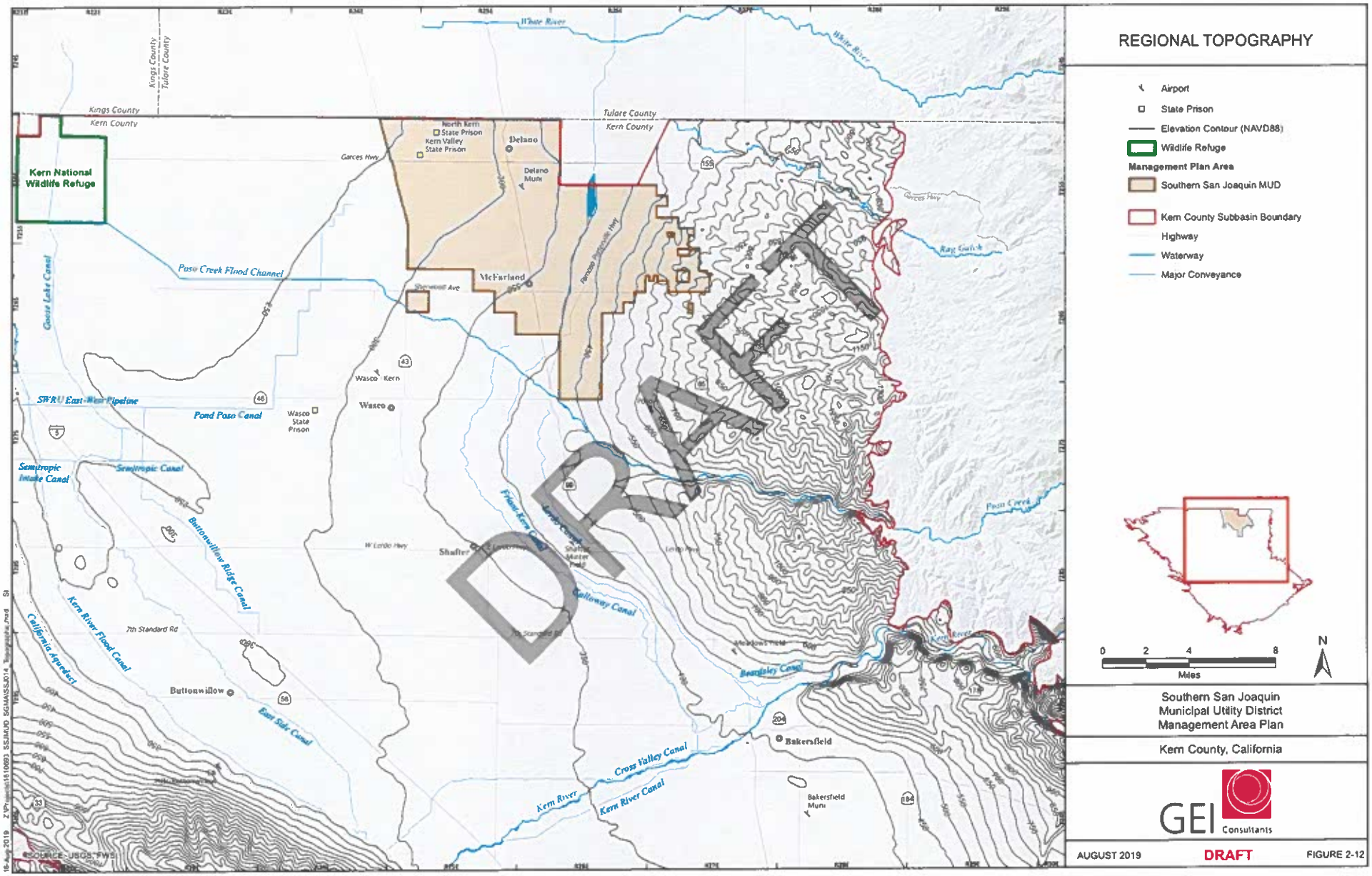
Kern County, CA

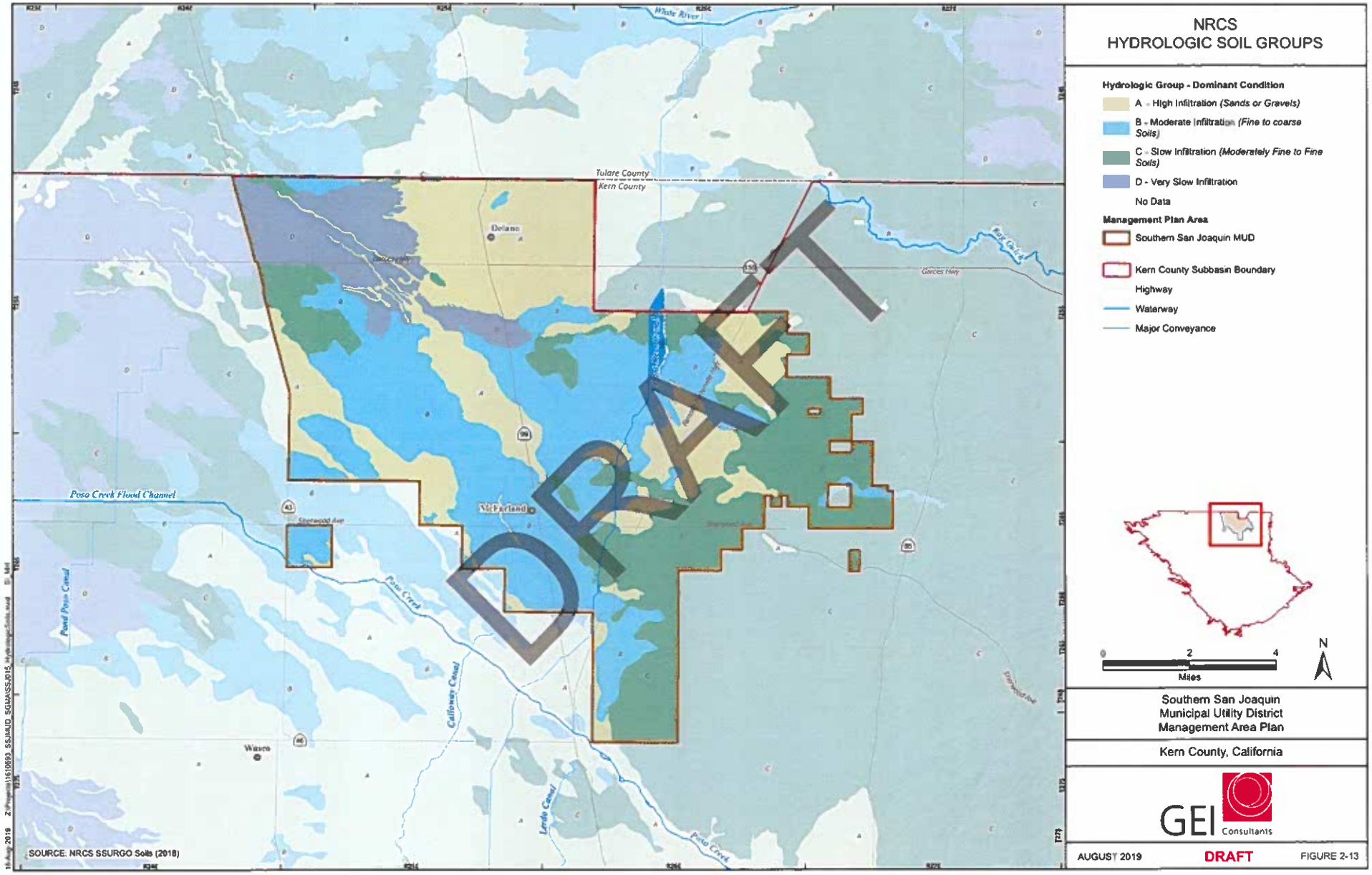
GEI Consultants

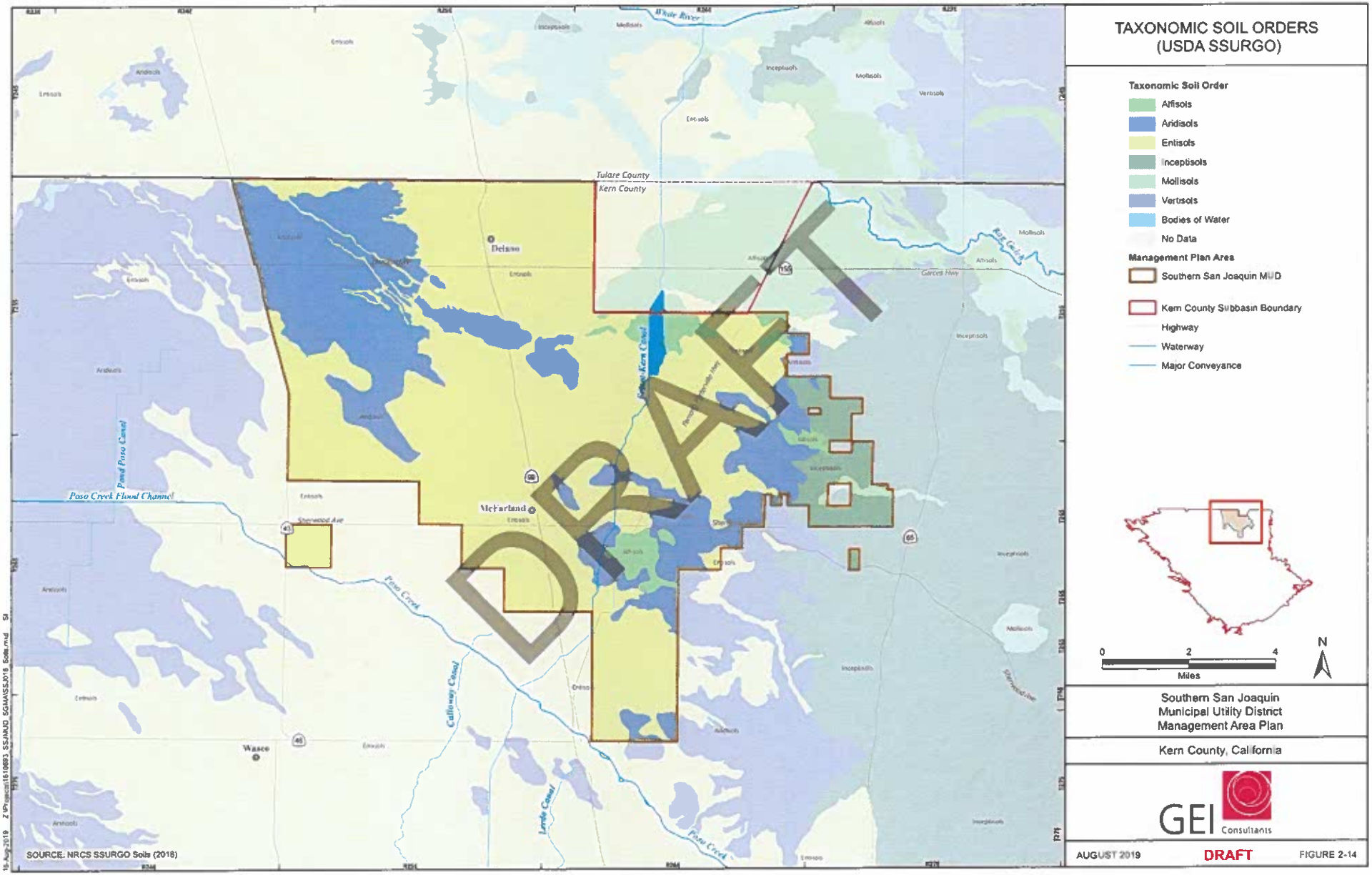
WEST TO EAST CROSS SECTION

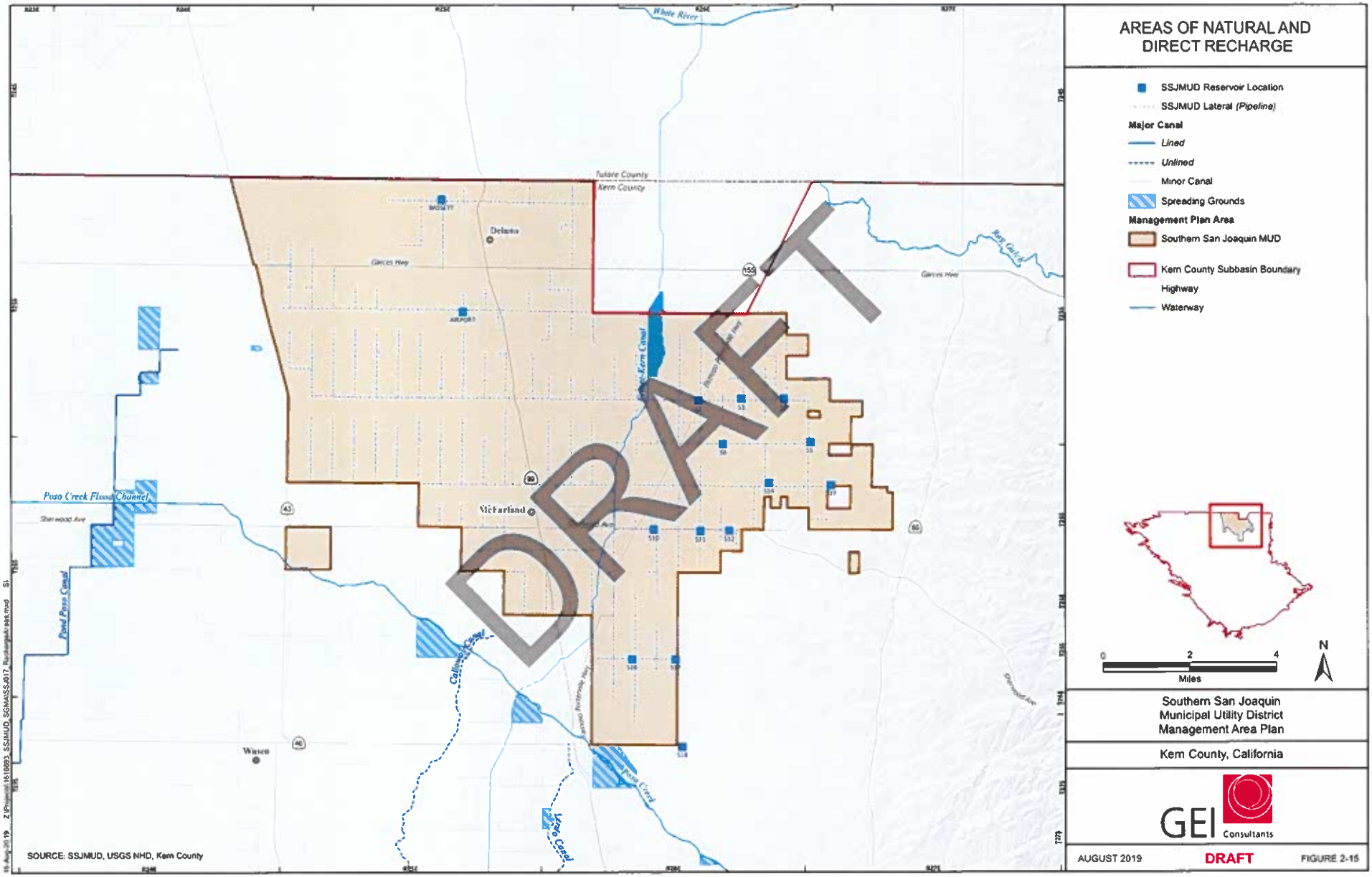
August 2019 DRAFT FIGURE 2-11

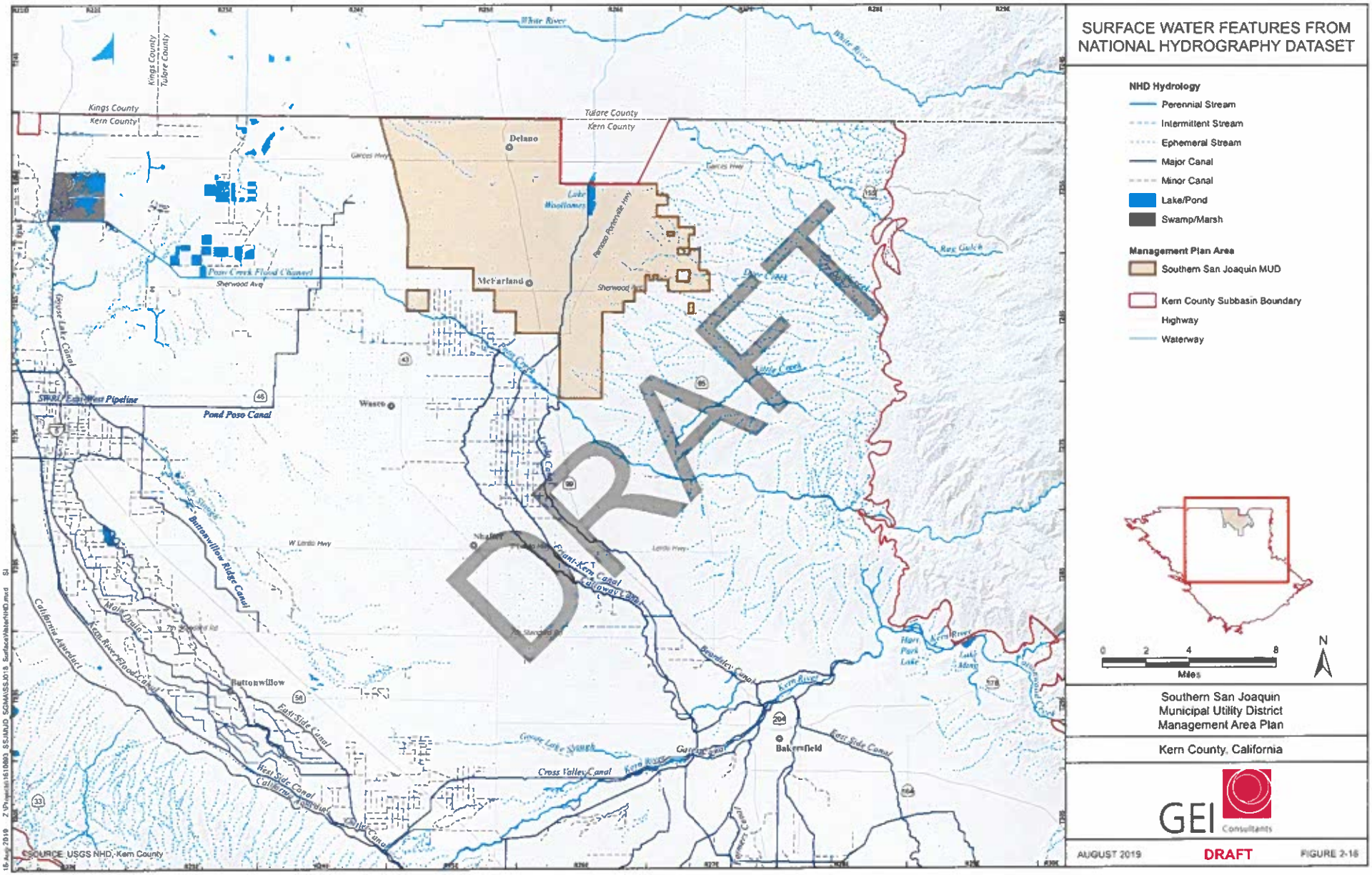
FENCE (GE) SAC FROM DWR: GEI GIS\ HGDS GJB SAC FROM DWR: GEI GIS\ WORS GJB I:\SE\SANJAY\RY DOCUMENTS\GIT\DRAWINGS\SJ-WUDNS_MUO WE CDW 8 15/2019

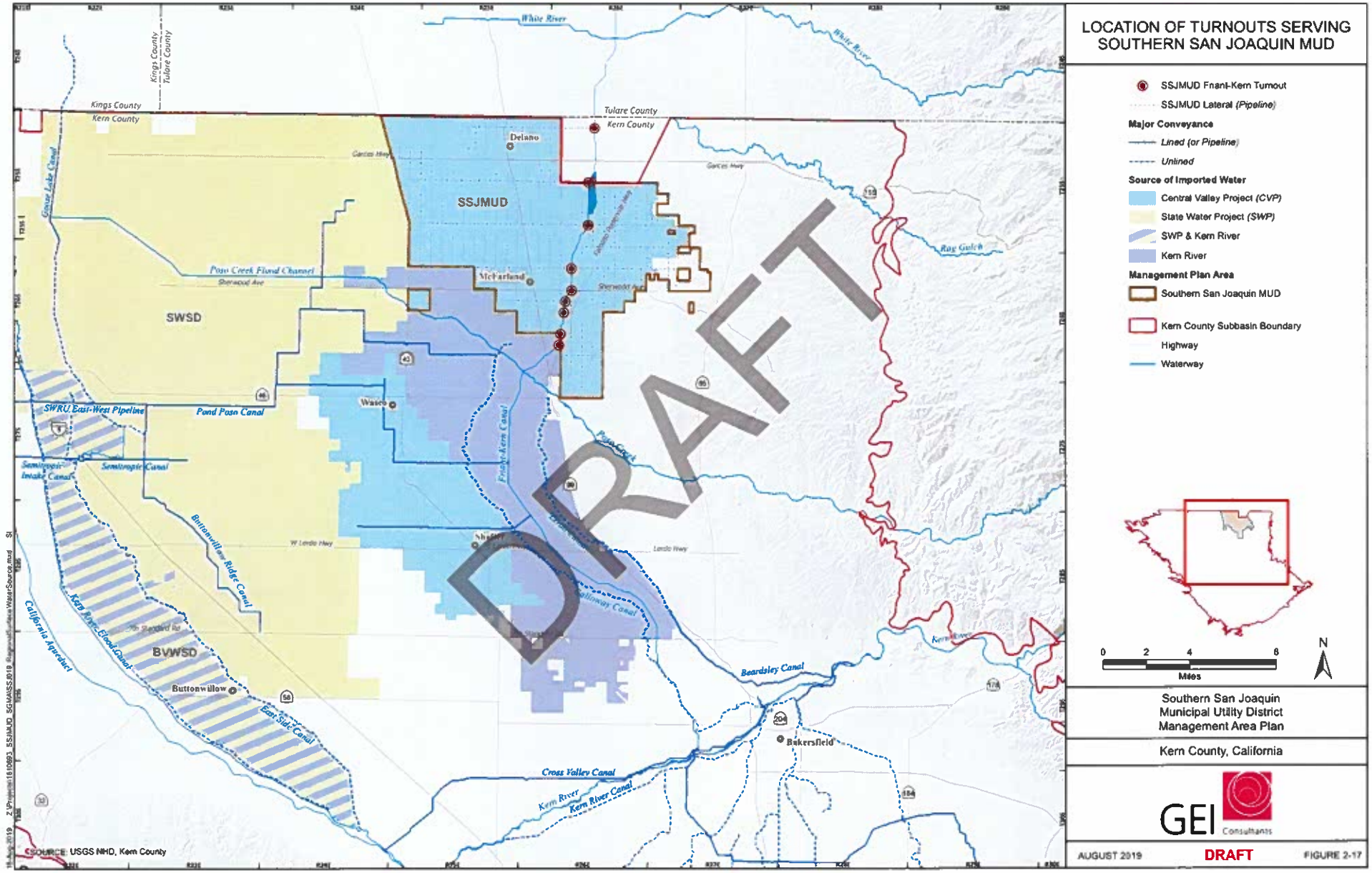

REGIONAL TOPOGRAPHY
Airport
State Prison
Elevation Contour (NAVD88)
Wildlife Refuge
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Kern National Wildlife Refuge
North Kern State Prison
Kern Valley State Prison
Delano
Delano Muni
McFarland
Wasco
Wasco State Prison
Shafter
Buttonwillow
Bakersfield
Bakersfield Muni
Kings County
Tulare County
Kern County
White River
Poso Creek Flood Channel
Goose Lake Canal
SWP/ East-West Pipeline
Pond Poso Canal
Semitropic Intake Canal
Semitropic Canal
Buttonwillow Ridge Canal
Kern River Flood Canal
California Aqueduct
East Side Canal
Friant Kern Canal
Calloway Canal
Beardsley Canal
Cross Valley Canal
Kern River Canal
Kern River
Garces Hwy
Stockdale Hwy
Panama Bypass Hwy
7th Standard Rd
Ming Ave
Rosedale Hwy
Poso Creek
0 2 4 8
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
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FIGURE 2-12
SOURCE: USGS, FWS
DRAFT

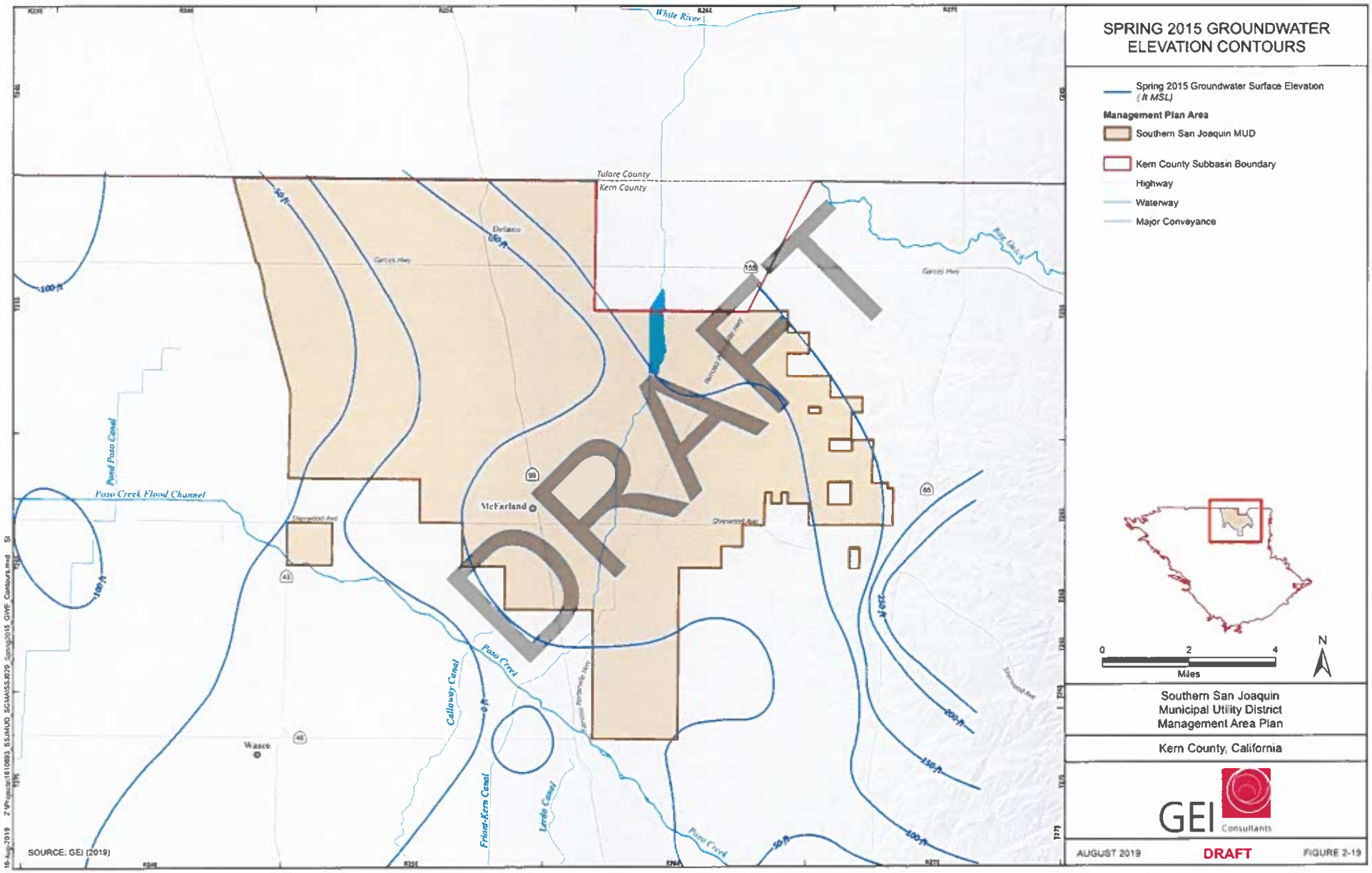

NRCS
HYDROLOGIC SOIL GROUPS
Hydrologic Group - Dominant Condition
A - High Infiltration (Sands or Gravels)
B - Moderate Infiltration (Fine to coarse Soils)
C - Slow Infiltration (Moderately Fine to Fine Soils)
D - Very Slow Infiltration
No Data
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
Delano
McFarland
Wasco
White River
Poso Creek Flood Channel
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
Garces Hwy
Stanislaus Ave
DRAFT
0
2
4
Miles
N
SOURCE: NRCS SSURGO Soils (2018)
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 2-13

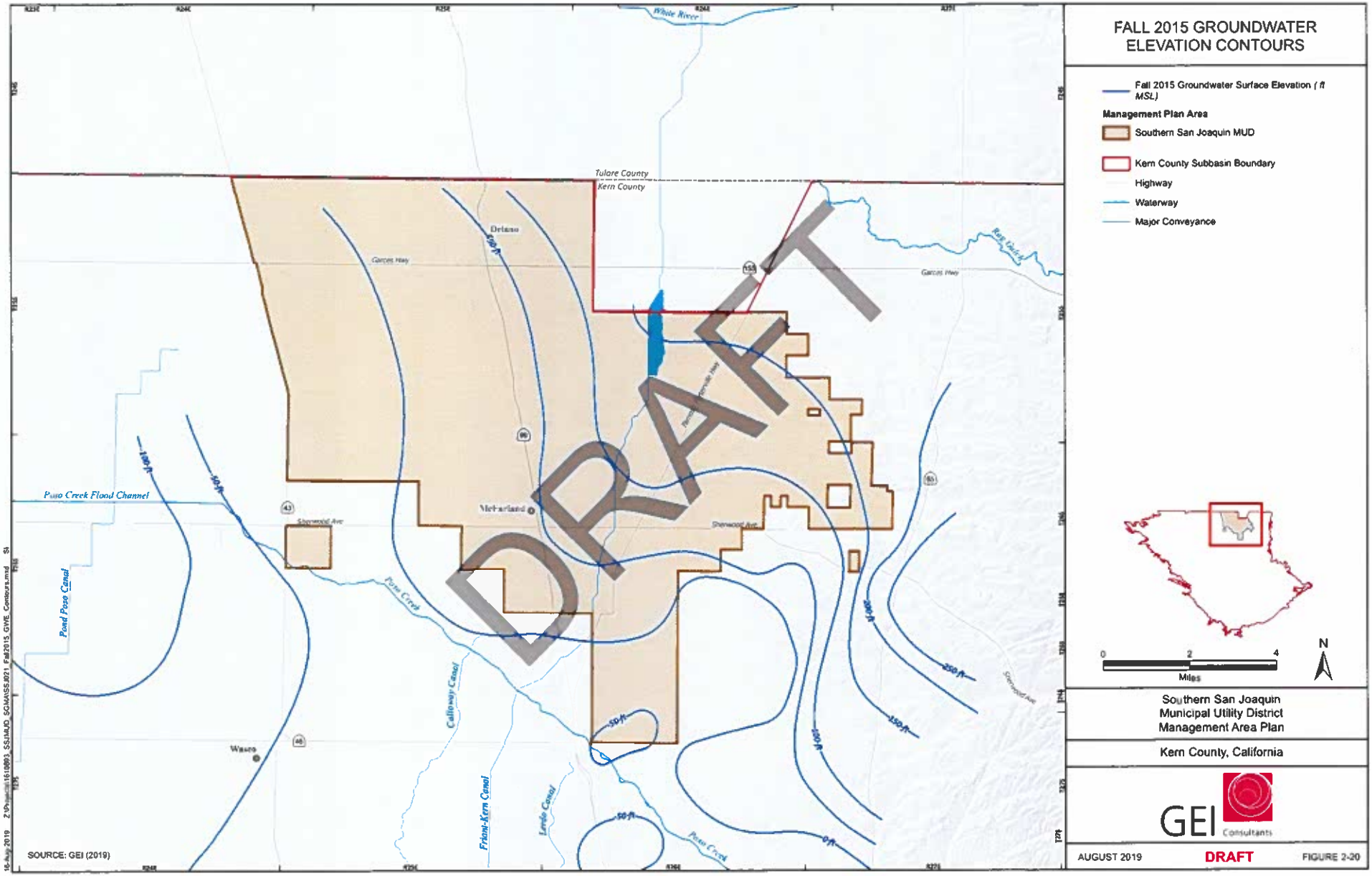

TAXONOMIC SOIL ORDERS
(USDA SSURGO)
Taxonomic Soil Order
Alfisols
Aridisols
Entisols
Inceptisols
Mollisols
Vertisols
Bodies of Water
No Data
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
Delano
McFarland
Wasco
Poso Creek Flood Channel
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
Garces Hwy
Stanislaus Ave
0
2
4
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 2-14
SOURCE: NRCS SSURGO Soils (2018)
DRAFT

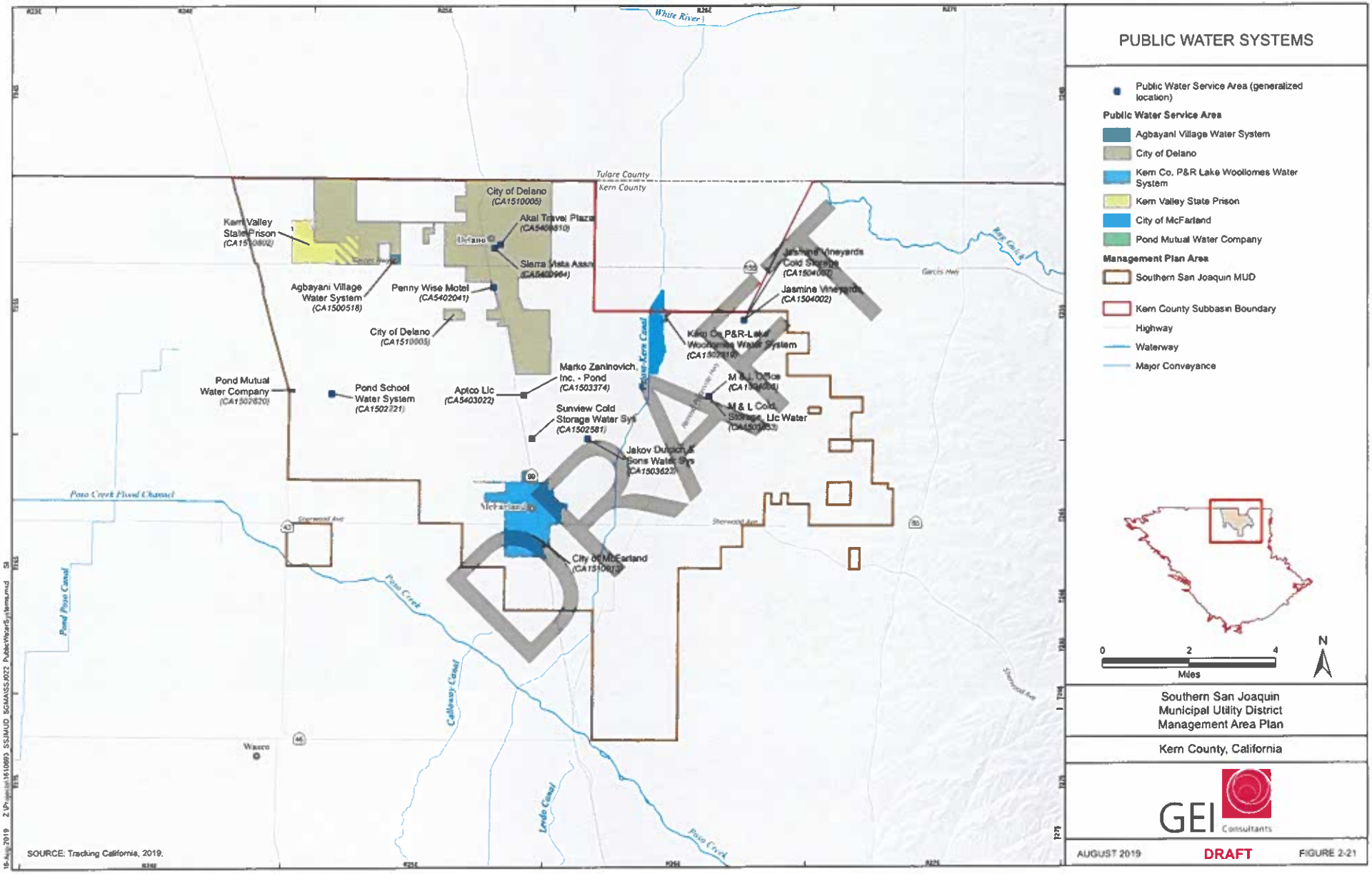

AREAS OF NATURAL AND DIRECT RECHARGE
SSJMUD Reservoir Location
SSJMUD Lateral (Pipeline)
Major Canal
Lined
Unlined
Minor Canal
Spreading Grounds
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
DRAFT
White River
Tulare County
Kern County
Delano
McFarland
Wasco
Garces Hwy
Poso Creek Flood Channel
Pond Poso Canal
Calloway Canal
Pond Creek
Kern Canal
Friant-Kern Canal
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
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FIGURE 2-15
SOURCE: SSJMUD, USGS NHD, Kern County

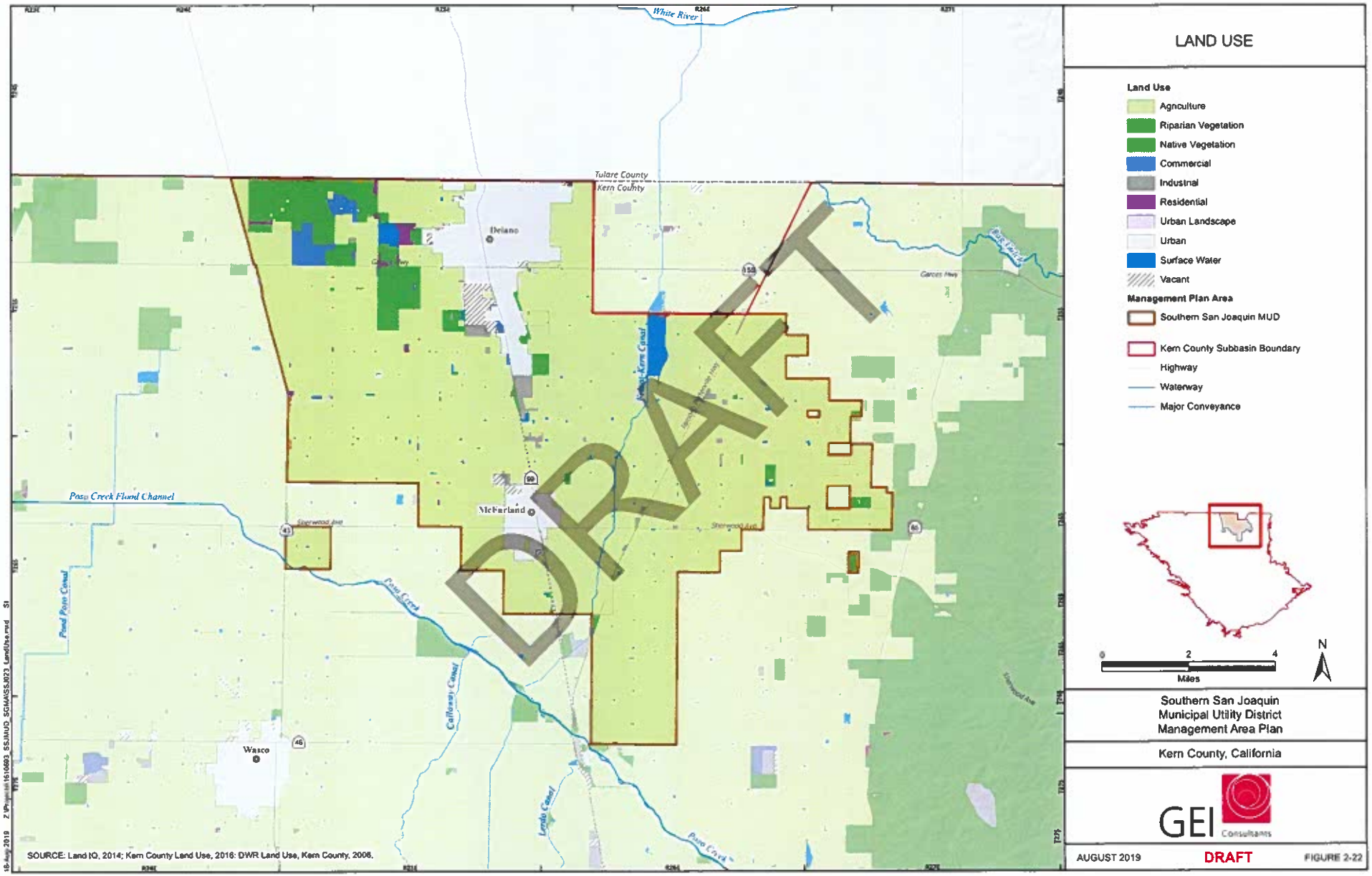

SURFACE WATER FEATURES FROM NATIONAL HYDROGRAPHY DATASET
NHD Hydrology
Perennial Stream
Intermittent Stream
Ephemeral Stream
Major Canal
Minor Canal
Lake/Pond
Swamp/Marsh
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
0 2 4 8
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 2-16
SOURCE: USGS NHD, Kern County
DRAFT
Delano
McFarland
Wasco
Shafter
Buttonwillow
Bakersfield
White River
Kings County
Tulare County
Kern County
Pond Poso Canal
Buttonwillow Ridge Canal
Front-Kern Canal
Galloway Canal
East Side Canal
West Side Canal
California Aqueduct
Kern River Flood Canal
Cross Valley Canal
Goose Lake Slough
Poso Creek Flood Channel
Sherwood Ave
Garces Hwy
W Lerdo Hwy
Lerdo Hwy
Famoso-Porterville Hwy
Kern River
Lake Woollomes
Lake Webb
Lake Evans
Lake Morton
Hart Park Lake

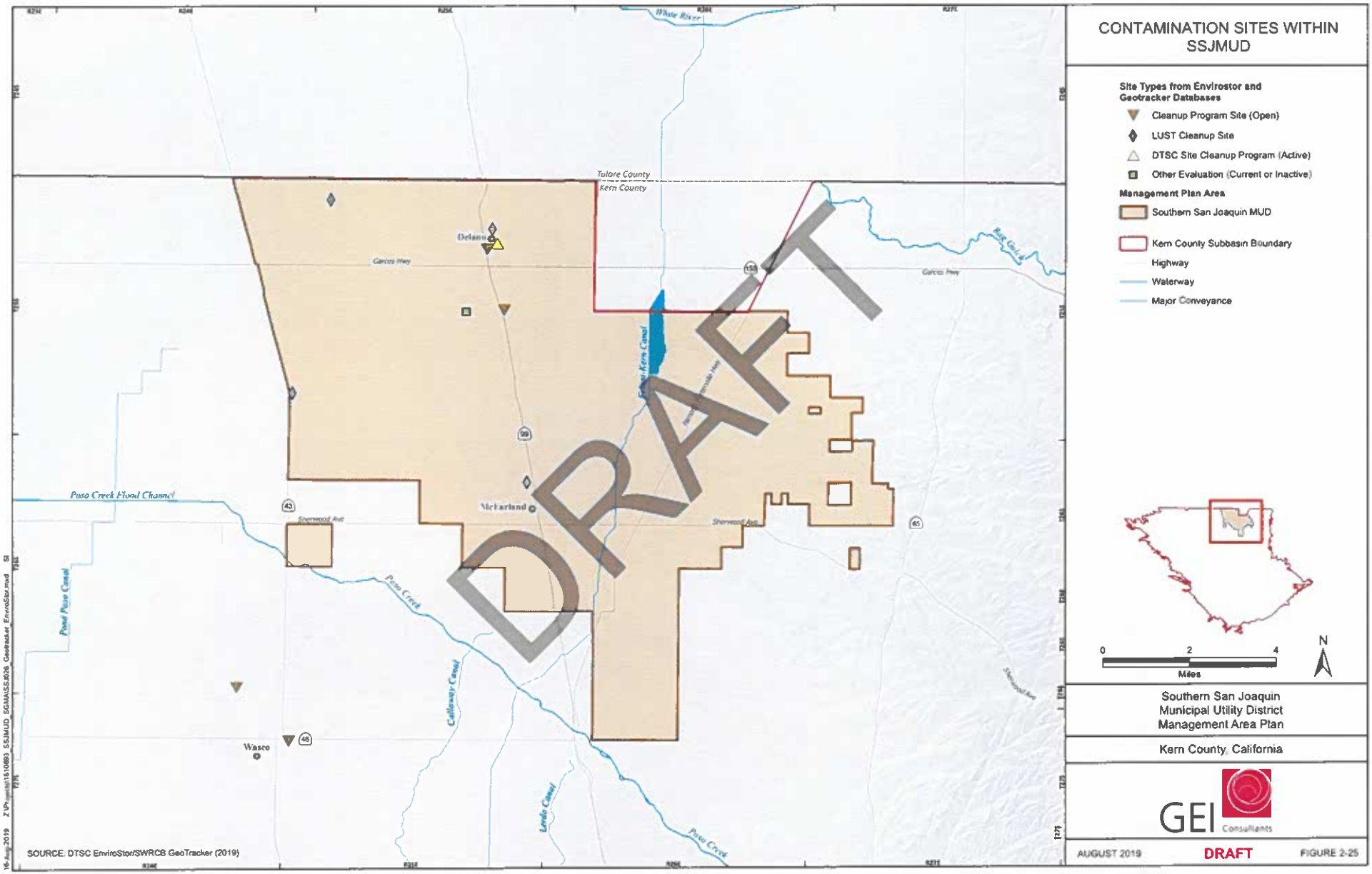

LOCATION OF TURNOUTS SERVING SOUTHERN SAN JOAQUIN MUD
SSJMUD Friant-Kern Turnout
SSJMUD Lateral (Pipeline)
Major Conveyance
Lined (or Pipeline)
Unlined
Source of Imported Water
Central Valley Project (CVP)
State Water Project (SWP)
SWP & Kern River
Kern River
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
0 2 4 6
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 2-17
DRAFT
SOURCE: USGS NHD, Kern County
SSJMUD
SWSD
BVWSD
Delano
McFarland
Wasco
Shafter
Buttonwillow
Bakersfield
White River
Kings County
Tulare County
Kern County
Garces Hwy
Sherwood Ave
Poso Creek Flood Channel
Pond Poso Canal
SWRU East-West Pipeline
Semitropic Canal
Semitropic Intake Canal
Buttonwillow Ridge Canal
Kern River Flood Canal
California Aqueduct
East Side Canal
Friant-Kern Canal
Poso Creek
Lerdo Hwy
Allen Rd
Stockdale Hwy
Beardsley Canal
Cross Valley Canal
Kern River
Kern River Canal
Rag Gulch

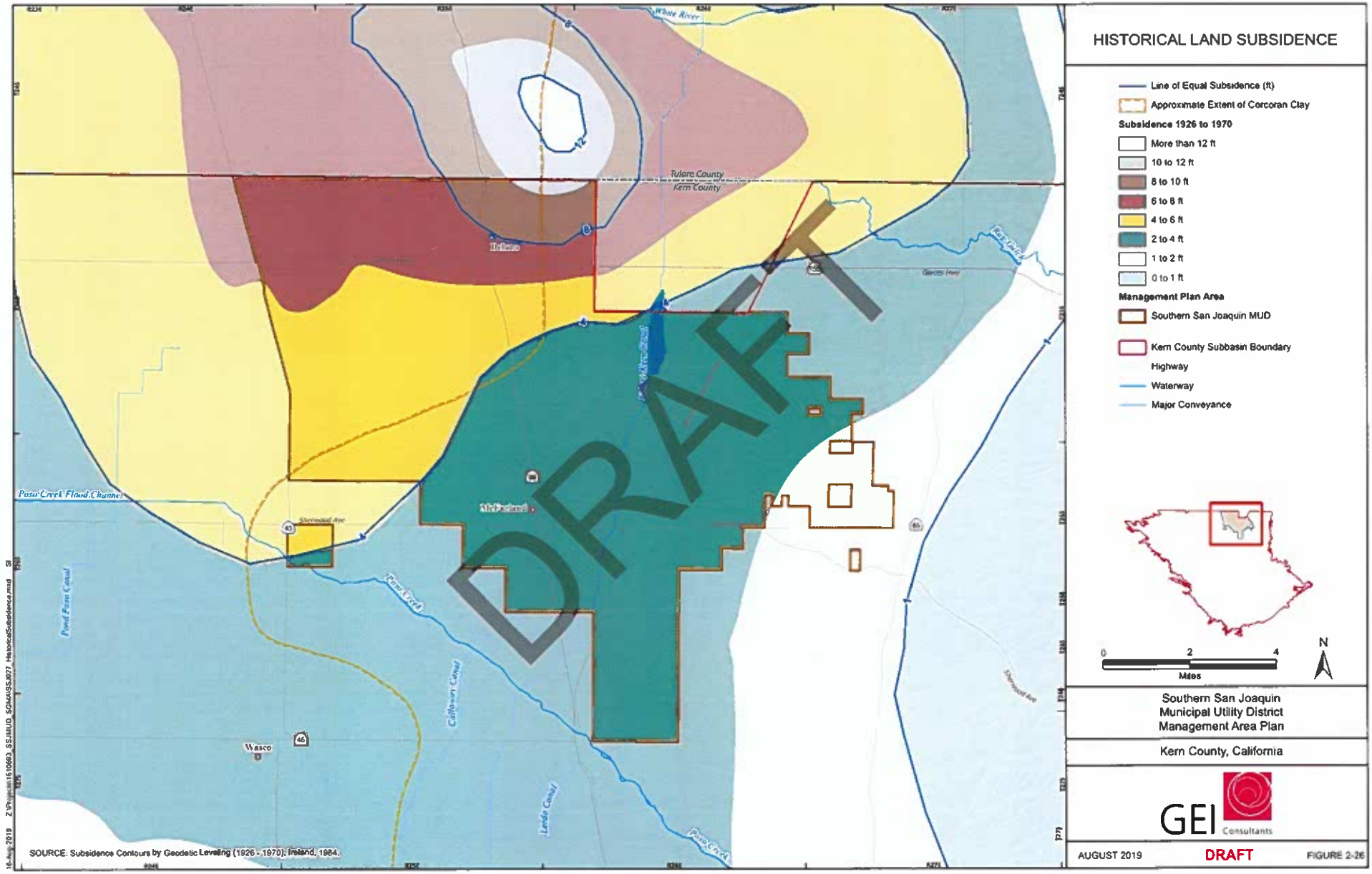

SPRING 2015 GROUNDWATER ELEVATION CONTOURS
Spring 2015 Groundwater Surface Elevation (ft MSL)
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
DRAFT
White River
Tulare County
Kern County
Delano
McFarland
Wasco
Garces Hwy
Poso Creek Flood Channel
Poso Creek
Calloway Canal
Friant-Kern Canal
Lerdo Canal
Shirwood Ave
50 ft
100 ft
150 ft
200 ft
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
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FIGURE 2-19
SOURCE: GEI (2019)

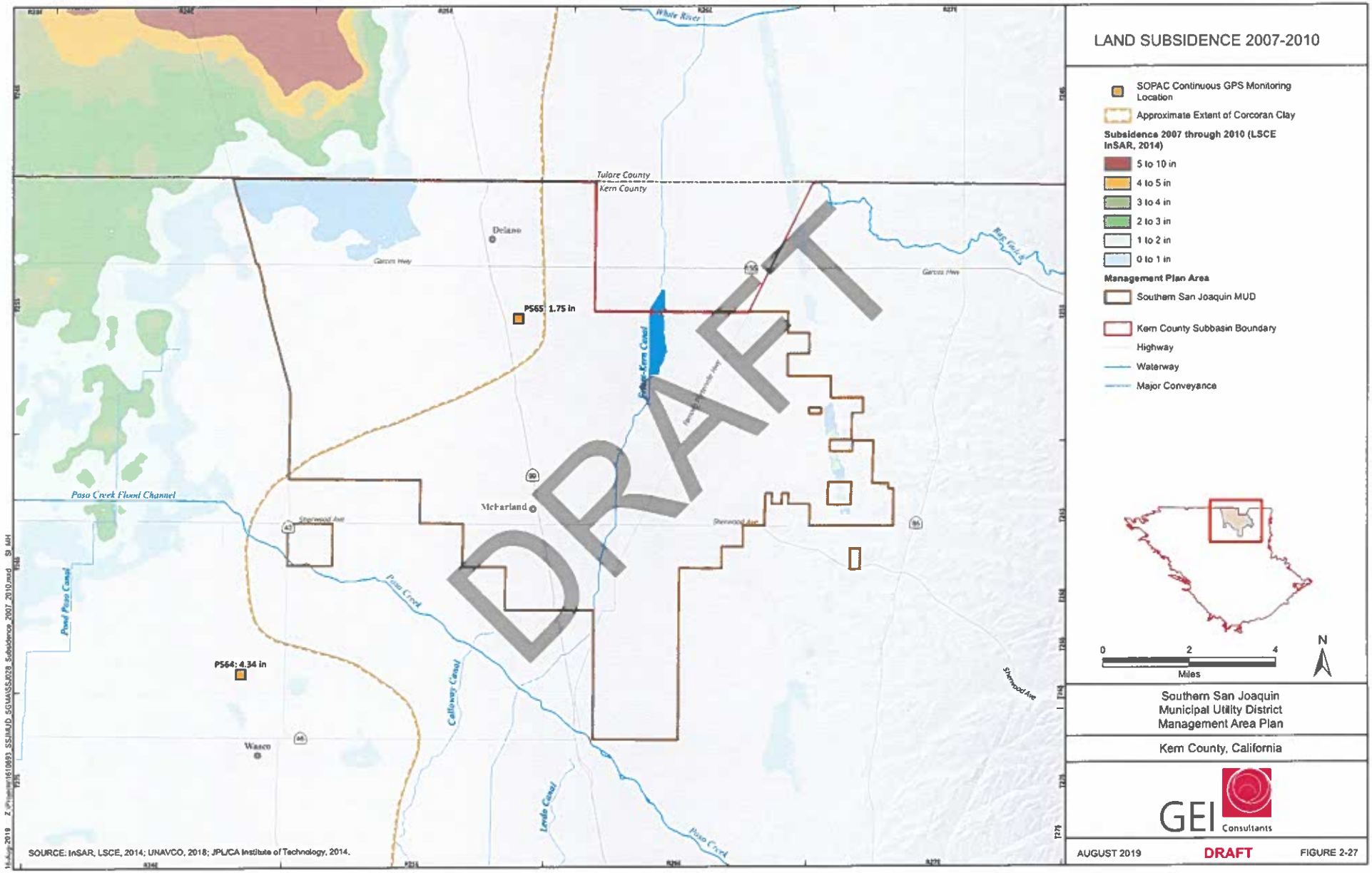

FALL 2015 GROUNDWATER ELEVATION CONTOURS
Fall 2015 Groundwater Surface Elevation (ft MSL)
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
DRAFT
White River
Tulare County
Kern County
Delano
Garces Hwy
Poso Creek Flood Channel
Pond Poso Canal
Shafter
Wasco
Sherwood Ave
Poso Creek
Calloway Canal
Friant-Kern Canal
Lerdo Canal
Kern Island Canal
100 ft
50 ft
200 ft
250 ft
150 ft
0 ft
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 2-20
SOURCE: GEI (2019)
15-Aug-2019 Z:\Projects\1610863_SSJMUD_SGMA\GIS\MXD\Fall2015_GWE_Contours.mxd SL

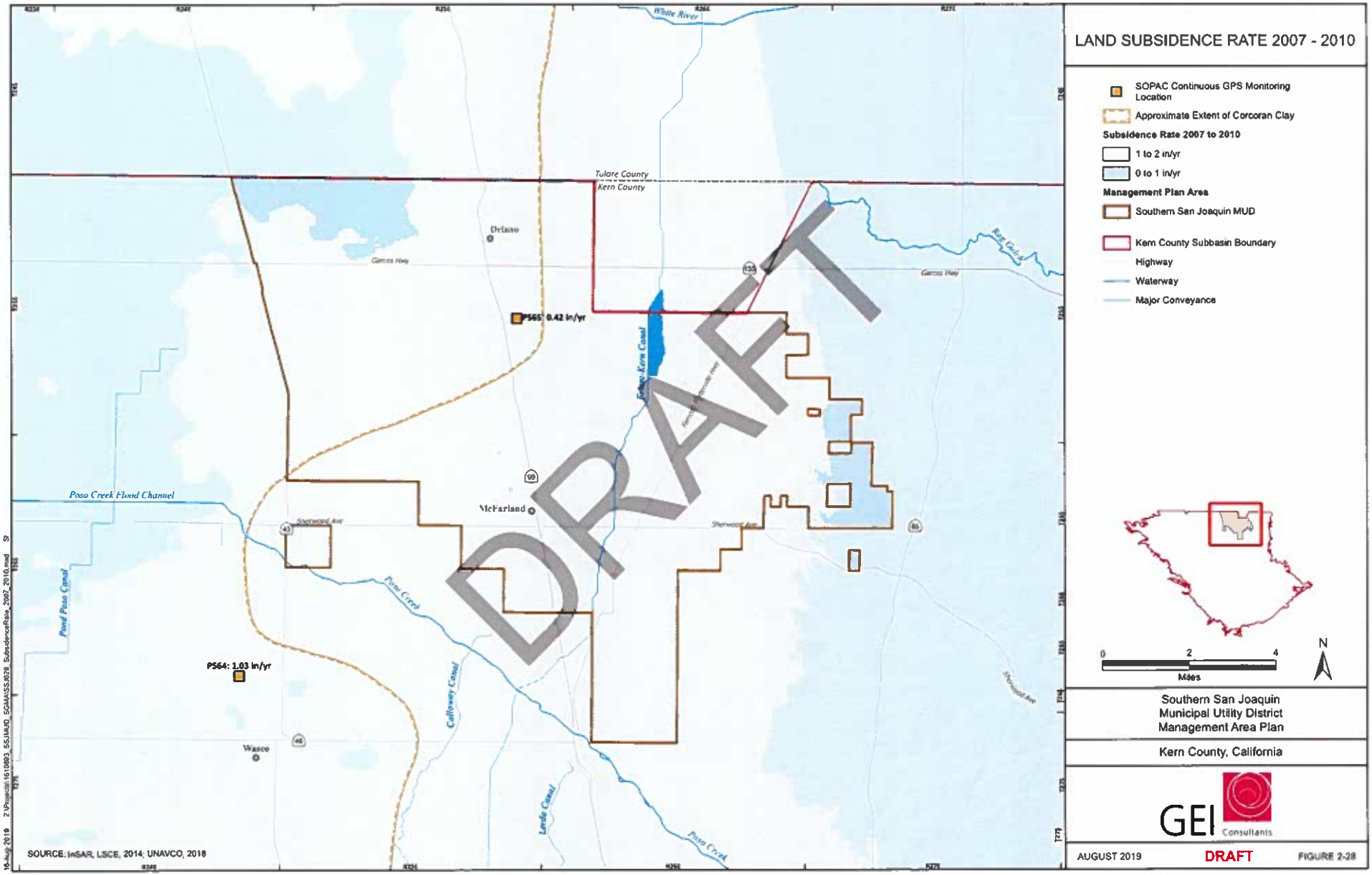

PUBLIC WATER SYSTEMS
Public Water Service Area (generalized location)
Public Water Service Area
Agbayani Village Water System
City of Delano
Kern Co. P&R Lake Woollomes Water System
Kern Valley State Prison
City of McFarland
Pond Mutual Water Company
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
White River
City of Delano (CA1510005)
Akal Travel Plaza (CA5406810)
Kern Valley State Prison (CA1510802)
Agbayani Village Water System (CA1500518)
Penny Wise Motel (CA5402041)
Sierra Vista Assn (CA5402964)
Jasmine Vineyards Cold Storage (CA1504002)
Jasmine Vineyards (CA1504002)
Kern Co. P&R-Lake Woollomes Water System (CA1502819)
Pond Mutual Water Company (CA1502620)
Pond School Water System (CA1502721)
Aptco Llc (CA5403022)
Marko Zaninovich Inc. - Pond (CA1503374)
M & L Office (CA1504006)
M & L Cold Storage, Llc Water (CA1503853)
Sunview Cold Storage Water Sys (CA1502581)
Jakov Dunjich & Sons Water Sys (CA1503623)
City of McFarland (CA1510013)
McFarland
Delano
Wasco
Pond Poso Canal
Poso Creek Flood Channel
Poso Creek
Calloway Canal
Lindo Canal
Garces Hwy
Sherwood Ave
Stanislaus Ave
Kern Canal
Friant-Kern Canal
DRAFT
0 2 4
Miles
N
SOURCE: Tracking California, 2019.
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 2-21

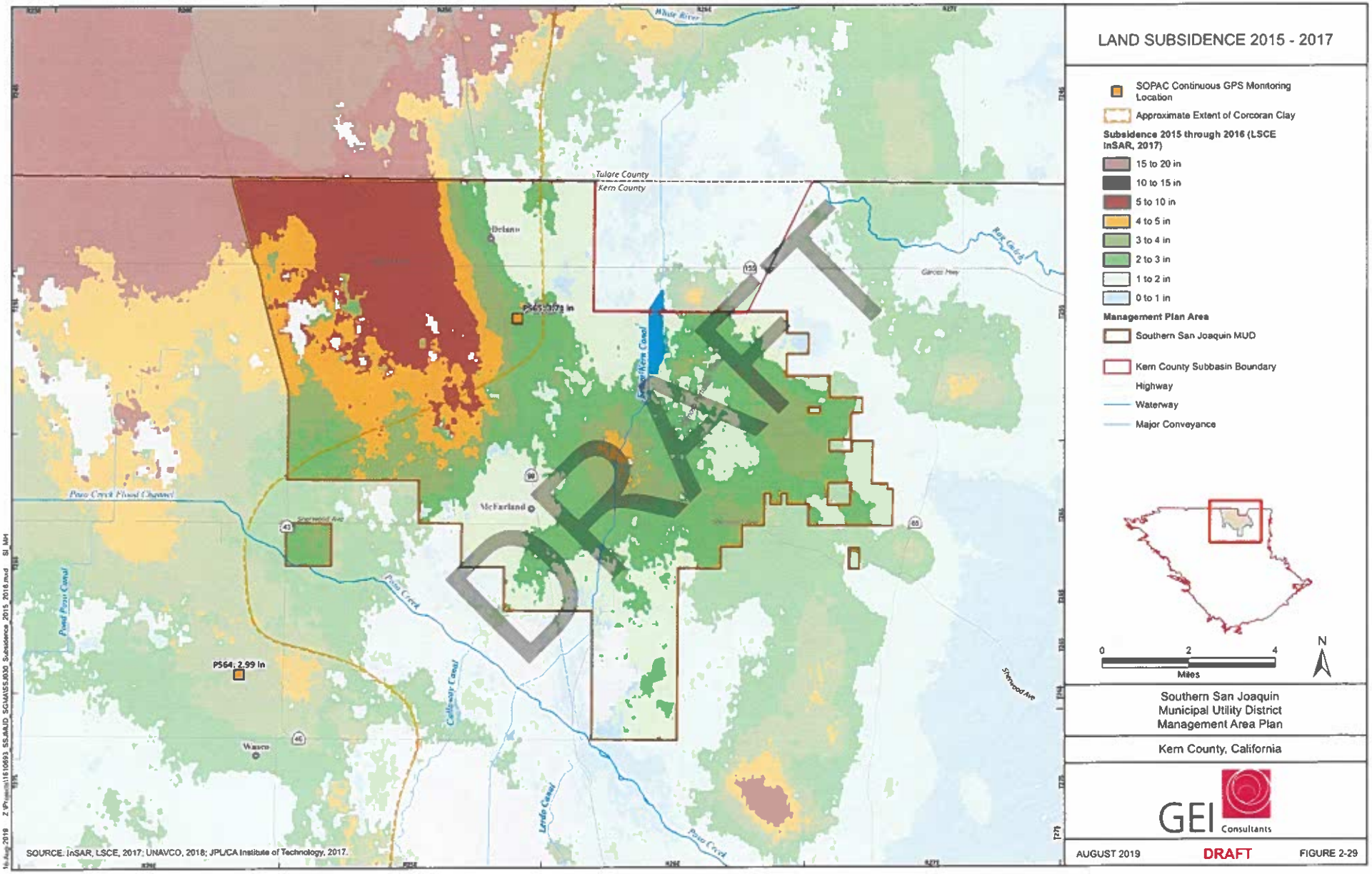

LAND USE
Land Use
Agriculture
Riparian Vegetation
Native Vegetation
Commercial
Industrial
Residential
Urban Landscape
Urban
Surface Water
Vacant
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
White River
Tulare County
Kern County
Delano
McFarland
Wasco
Poso Creek Flood Channel
Pond Poso Canal
Poso Creek
California Canal
Lerdo Canal
Cross Creek
Garces Hwy
Sherwood Ave
Edgerwood Ave
Point Rock Rd
Delano-Earlimart Irrigation Canal
Friant-Kern Canal
DRAFT
0
2
4
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 2-22
SOURCE: Land IQ, 2014; Kern County Land Use, 2016; DWR Land Use, Kern County, 2006.

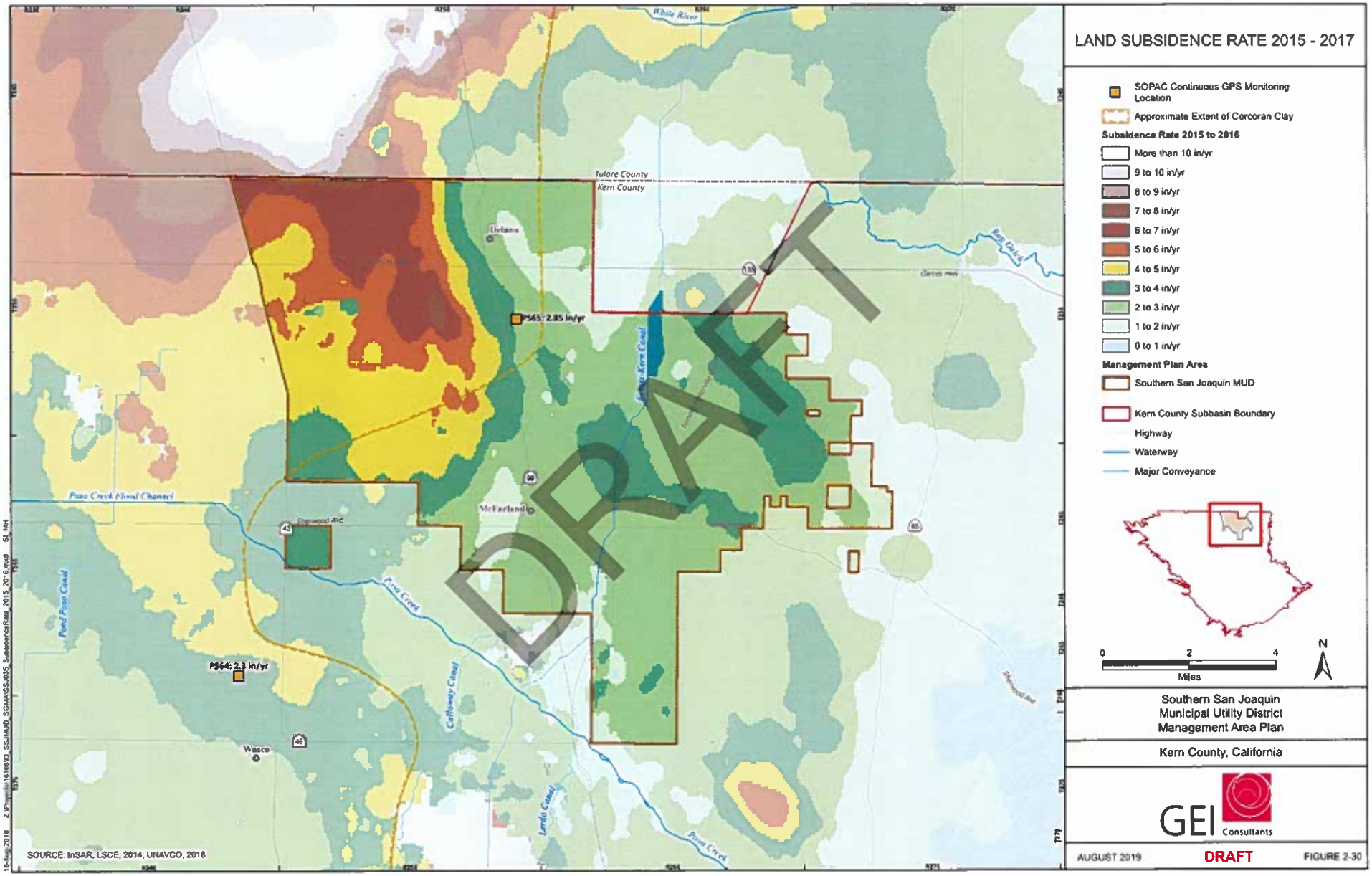

CONTAMINATION SITES WITHIN SSJMUD
Site Types from Envirostor and Geotracker Databases
Cleanup Program Site (Open)
LUST Cleanup Site
DTSC Site Cleanup Program (Active)
Other Evaluation (Current or Inactive)
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
Delano
McFarland
Wasco
Garces Hwy
Sherwood Ave
Poso Creek Flood Channel
Poso Creek
Point Poso Canal
Calloway Canal
Lerdo Canal
Point Kern Canal
Kern Island Canal
White River
DRAFT
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 2-25
SOURCE: DTSC EnviroStor/SWRCB GeoTracker (2019)

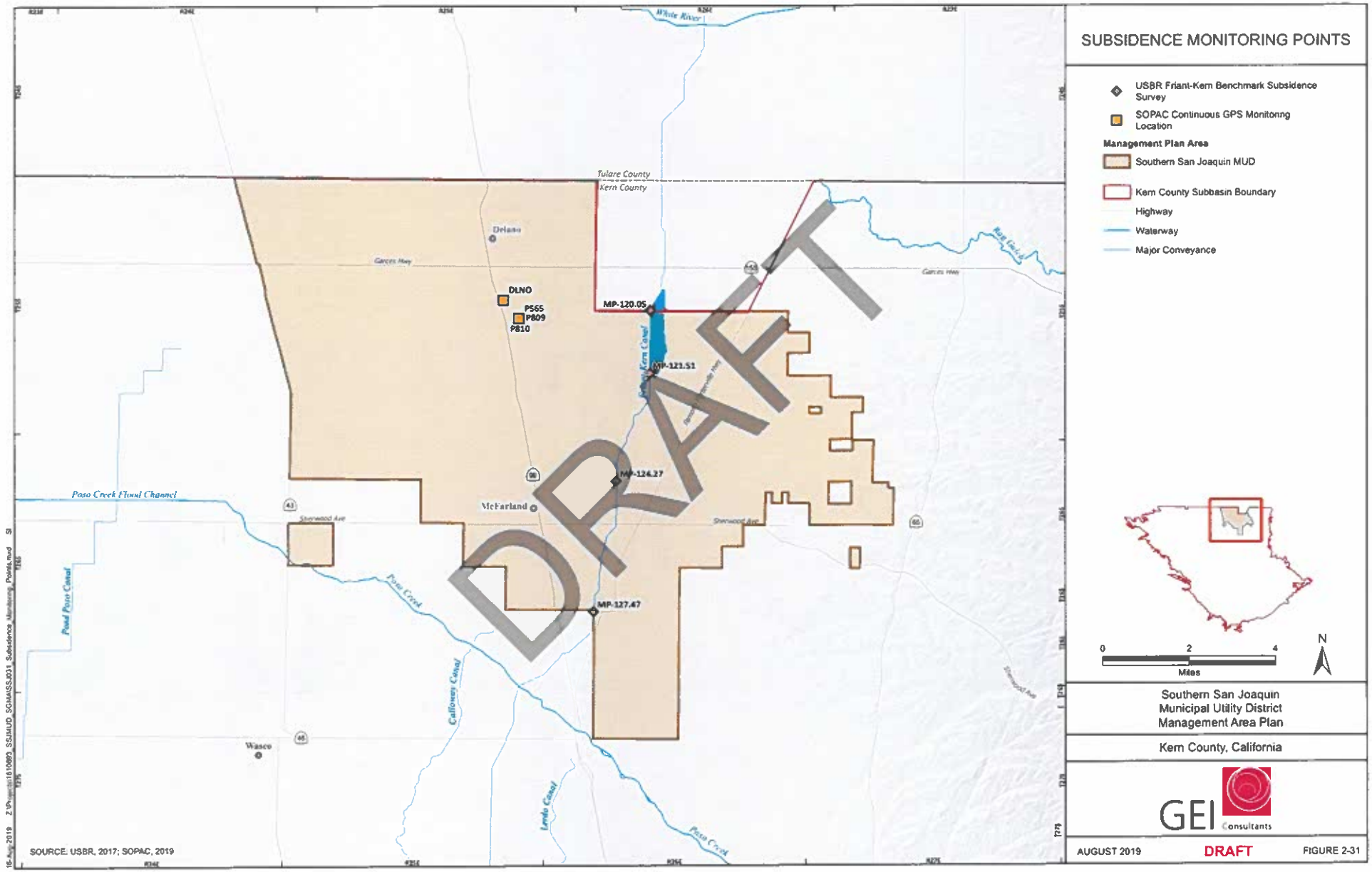

HISTORICAL LAND SUBSIDENCE
Line of Equal Subsidence (ft)
Approximate Extent of Corcoran Clay
Subsidence 1926 to 1970
More than 12 ft
10 to 12 ft
8 to 10 ft
6 to 8 ft
4 to 6 ft
2 to 4 ft
1 to 2 ft
0 to 1 ft
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
0
2
4
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 2-26
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SOURCE: Subsidence Contours by Geodetic Leveling (1926 - 1970), Ireland, 1984.
Tulare County
Kern County
White River
Pixley
Delano
McFarland
Wasco
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
Pasa Creek Flood Channel
Sherwood Ave
Garces Hwy
Rag Gulch


LAND SUBSIDENCE 2007-2010
SOPAC Continuous GPS Monitoring Location
Approximate Extent of Corcoran Clay
Subsidence 2007 through 2010 (LSCE InSAR, 2014)
5 to 10 in
4 to 5 in
3 to 4 in
2 to 3 in
1 to 2 in
0 to 1 in
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
Delano
McFarland
Wasco
White River
Garces Hwy
Sherwood Ave
Poso Creek
Poso Creek Flood Channel
Pond Poso Canal
Calloway Canal
Lerdo Canal
Friant-Kern Canal
P565: 1.75 in
P564: 4.34 in
0
2
4
Miles
N
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SOURCE: InSAR, LSCE, 2014; UNAVCO, 2018; JPL/CA Institute of Technology, 2014.
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
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FIGURE 2-27


LAND SUBSIDENCE RATE 2007 - 2010
SOPAC Continuous GPS Monitoring Location
Approximate Extent of Corcoran Clay
Subsidence Rate 2007 to 2010
1 to 2 in/yr
0 to 1 in/yr
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
White River
Tulare County
Kern County
Delano
Garces Hwy
PS65: 0.42 in/yr
Edison-Kern Canal
Poso Creek Flood Channel
McFarland
Sherwood Ave
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
PS64: 1.03 in/yr
Wasco
SOURCE: InSAR, LSCE, 2014; UNAVCO, 2018
DRAFT
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 2-28


LAND SUBSIDENCE 2015 - 2017
SOPAC Continuous GPS Monitoring Location
Approximate Extent of Corcoran Clay
Subsidence 2015 through 2016 (LSCE InSAR, 2017)
15 to 20 in
10 to 15 in
5 to 10 in
4 to 5 in
3 to 4 in
2 to 3 in
1 to 2 in
0 to 1 in
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 2-29
PS64: 2.99 in
Tulare County
Kern County
McFarland
Delano
Wasco
Poso Creek Flood Channel
Pond Poso Canal
Poso Creek
Lerdo Canal
Sherwood Ave
SOURCE: InSAR, LSCE, 2017; UNAVCO, 2018; JPL/CA Institute of Technology, 2017.
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LAND SUBSIDENCE RATE 2015 - 2017
SOPAC Continuous GPS Monitoring Location
Approximate Extent of Corcoran Clay
Subsidence Rate 2015 to 2016
More than 10 in/yr
9 to 10 in/yr
8 to 9 in/yr
7 to 8 in/yr
6 to 7 in/yr
5 to 6 in/yr
4 to 5 in/yr
3 to 4 in/yr
2 to 3 in/yr
1 to 2 in/yr
0 to 1 in/yr
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 2-30
PS65: 2.85 in/yr
PS64: 2.3 in/yr
Tulare County
Kern County
Delano
McFarland
Wasco
White River
Poso Creek Rural Channel
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
Stonewood Ave
SOURCE: InSAR, LSCE, 2014; UNAVCO, 2018
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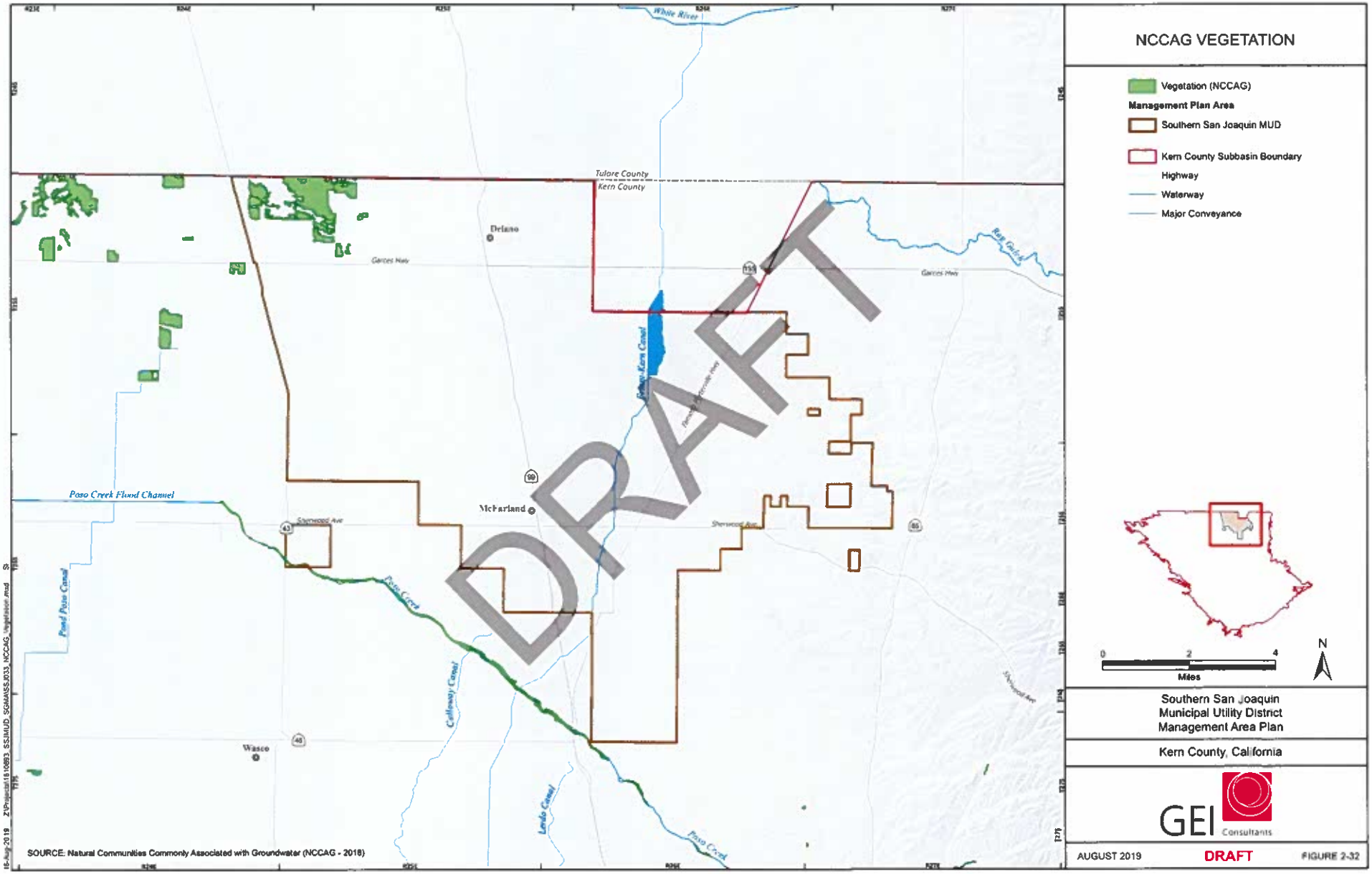


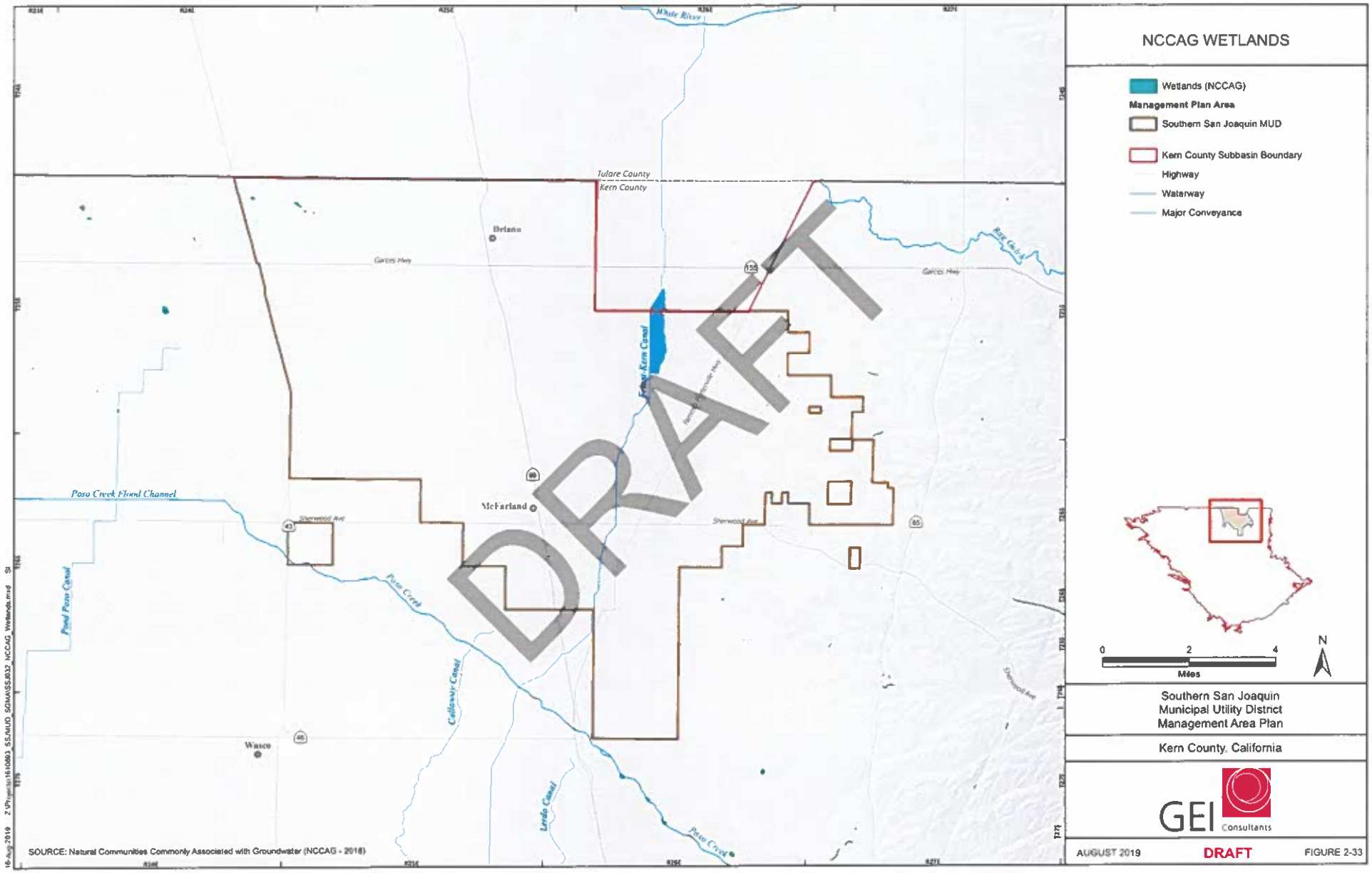
Southern San Joaquin Municipal Utility District Management Area Plan

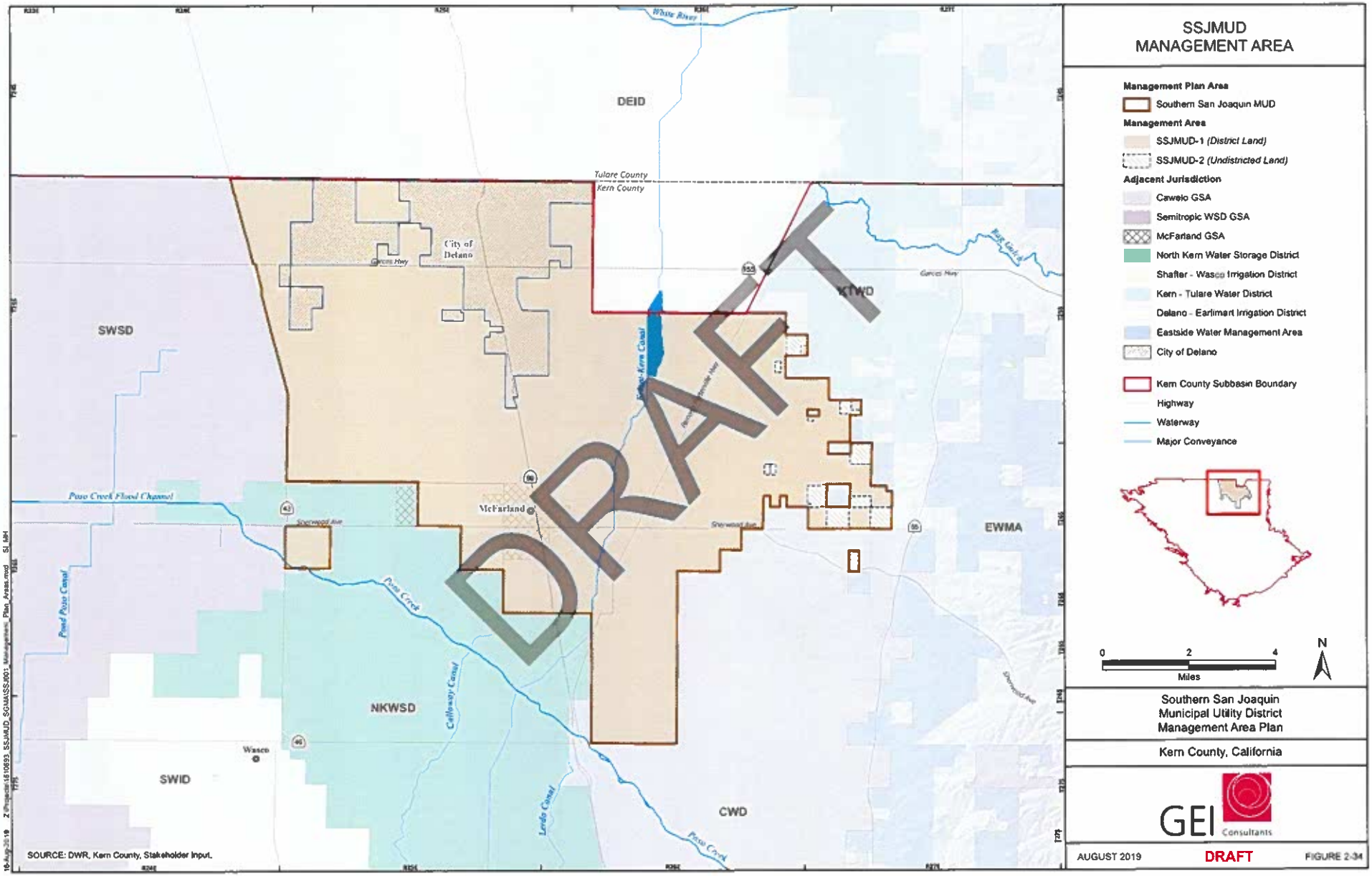
Kern County, California

GEI Consultants

AUGUST 2019 DRAFT FIGURE 2-31


NCCAG VEGETATION
Vegetation (NCCAG)
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
Delano
McFarland
Wasco
White River
Poso Creek Flood Channel
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
Sherwood Ave
Garces Hwy
Friant-Kern Canal
0
2
4
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
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FIGURE 2-32
SOURCE: Natural Communities Commonly Associated with Groundwater (NCCAG - 2018)
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NCCAG WETLANDS
Wetlands (NCCAG)
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
Tulare County
Kern County
Delano
McFarland
Wasco
Poso Creek Flood Channel
Pond Poso Canal
Poso Creek
Calloway Canal
Lerdo Canal
Friant-Kern Canal
Garces Hwy
Sherwood Ave
White River
Kern Canal
DRAFT
0
2
4
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 2-33
SOURCE: Natural Communities Commonly Associated with Groundwater (NCCAG - 2018)


SSJMUD
MANAGEMENT AREA
Management Plan Area
Southern San Joaquin MUD
Management Area
SSJMUD-1 (District Land)
SSJMUD-2 (Undistricted Land)
Adjacent Jurisdiction
Cawelo GSA
Semitropic WSD GSA
McFarland GSA
North Kern Water Storage District
Shafter - Wasco Irrigation District
Kern - Tulare Water District
Delano - Earlimart Irrigation District
Eastside Water Management Area
City of Delano
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
0
2
4
Miles
N
DRAFT
DEID
KTWD
SWSD
EWMA
NKWSD
SWID
CWD
City of Delano
McFarland
Wasco
Tulare County
Kern County
Garces Hwy
Sherwood Ave
Poso Creek Flood Channel
Poso Creek
Calloway Canal
Lerdo Canal
Friant-Kern Canal
Pond Poso Canal
SOURCE: DWR, Kern County, Stakeholder Input.
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
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FIGURE 2-34

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3. Sustainable Management Criteria

3.1 Sustainability Goals

SGMA requires that a sustainability goal be defined for the basin (CWC §10727(a)) and the GSP emergency regulations further clarify that the sustainability goal be defined on a basin-wide basis. SSJMUD, working with the KGA and other GSAs in the Subbasin have developed the following sustainability goals for the Subbasin:

Sustainable management in the Kern County Subbasin will result from the implementation of projects and management actions at the member agency level of each GSA to maintain its groundwater use to the sustainable yield of the basin, operate at or above established measurable objectives, and above established minimum thresholds. The sustainable yield, measurable objectives, and minimum thresholds in the Subbasin have been established based on the technical information presented in the Basin Setting of this KGA GSP and the technical information developed by each member agency and presented in their management area plans.

The projects and management actions proposed by the member agencies of the KGA include a variety of water supply development and demand management actions that collectively will bring the Subbasin sustainability over the 20-year implementation period.

The Subbasin will continuously monitor groundwater conditions, as required by SGMA, and will continue coordination among the KGA member agencies and all other GSA's in the Subbasin to identify the potential for or presence of undesirable results. The coordination process established in the development of the this GSP and memorialized in the coordination agreement will ensure that the Subbasin is managed as a unit and that the districts within the Subbasin work collaboratively towards sustainability.

3.2 Undesirable Results

Undesirable results for each sustainability indictor have been developed through a collaborative process with all GSAs in the Subbasin, compliant with GSP emergency regulations, which states that undesirable results are to be defined consistently throughout the basin (23-CCR § 354.20). The definitions of undesirable results provide flexibility for each management area within the Subbasin to define minimum thresholds that constitute significant and unreasonable impacts to the beneficial uses and users of groundwater within the specific management areas.

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The definitions of undesirable results for the Subbasin are described in the KGA GSP and are repeated here with additional information regarding causes and effects of each sustainability indicator for the SSJMUD management area.

3.2.1 Undesirable Results for Chronic Lowering of Groundwater Levels

The basin-wide definition of undesirable results for chronic lowering of groundwater levels is as follows:

> *The point at which significant and unreasonable impacts over the planning and implementation horizon, as determined by depth/elevation of water, affect the reasonable and beneficial use of, and access to, groundwater by overlying users.*
>
> *This is determined when the minimum threshold for groundwater levels are exceeded in at least three (3) adjacent management areas that represent at least 15% of the Subbasin or greater than 30% of the Subbasin (as measured by each management area). Minimum thresholds shall be set by each of the management areas through their respective management area plans and Groundwater Sustainability Plans.*

Within the Subbasin, a management area will be considered an undesirable results watch area for lowering of groundwater levels when it exceeds its minimum threshold criteria, as determined by each management area. The SSJMUD management area will be considered an undesirable results watch area when 51% of the representative monitoring sites in a management area violate their minimum threshold for groundwater levels. If multiple undesirable results watch areas meet the criteria for a Subbasin undesirable result, as defined above, the Subbasin would be considered to be experiencing an undesirable result.

3.2.1.1 Potential Cause of Undesirable Results

A potential cause of the undesirable result of chronic lowering of groundwater levels in the SSJMUD management area is a continued or increased reliance on groundwater pumping due to the reduction of imported water supplies. As the primary use of groundwater in SSJMUD is for agriculture, increased groundwater pumping could also occur if new land is put into agricultural production or if water use per acre on existing irrigated land increases. Volume of water pumped by municipal and industrial users is relatively minimal when compared to the volume of water used for agricultural production. No significant development is anticipated in SSJMUD based on the review of the current General Plans.

3.2.1.2 Potential Effects of Undesirable Results

The primary potential effect of the chronic lowering of groundwater levels on the beneficial uses and users of groundwater in SSJMUD may include groundwater well

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dewatering and increased pumping lift. Well dewatering is detrimental to wells as it can lead to increased maintenance costs (e.g., well rehabilitation/redevelopment and pump lowering) and reduced well lifespan due to corrosion of well casings and screens. Increased pumping lift results in more energy use necessary per unit volume of groundwater pumped and corresponding higher pumping costs, as well as increased wear and tear on well pump motors, and reduced well efficiency.

3.2.2 Undesirable Results for Reduction of Groundwater Storage

The basin-wide definition of undesirable results for reduction of groundwater storage is as follows:

> *The point at which significant and unreasonable impacts, as determined by the amount of groundwater in the basin, affect the reasonable and beneficial use of, and access to, groundwater by overlying users over an extended 10-year drought period.*
>
> *This is determined when the volume of storage (above the groundwater level minimum thresholds) is depleted to an elevation lower than the groundwater level minimum threshold in at least three (3) adjacent management areas that represent at least 15% of the Subbasin or greater than 30% of the Subbasin (as measured by the acreage of each management area). Minimum thresholds shall be set by each of the management areas through their respective management area plans and Groundwater Sustainability Plans.*

Within the Subbasin, a management area will be considered an undesirable results watch area for reduction in storage when it exceeds its minimum threshold criteria, as determined by each management area. The SSJMUD management area will be considered an undesirable results watch area for reduction in groundwater storage when 51% of the representative monitoring sites in a management area violate their minimum threshold for groundwater levels, since water elevations serve as a proxy for reduction of groundwater storage. If multiple undesirable results watch areas meet the criteria for a Subbasin undesirable result, as defined above, the Subbasin would be considered to be experiencing an undesirable result.

3.2.2.1 Potential Cause of Undesirable Results

Reduction of groundwater storage is generally correlated to chronic lowering of groundwater levels. Therefore, the potential causes of undesirable results due to reduction in groundwater storage are generally the same as the potential causes listed above for the undesirable results due to chronic lowering of groundwater levels.

3.2.2.2 Potential Effects of Undesirable Results

SSJMUD has defined the undesirable result of reduction of groundwater storage as the reduction of available groundwater volumes needed to support a 10-year drought period,

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similar to that experienced over the 2006 to 2016 period. The volume of groundwater storage needed to support a 10-year drought is above the minimum threshold for chronic lowering of groundwater levels, therefore groundwater elevations below this minimum threshold would have the same effects on beneficial uses and users in SSJMUD as chronic lowering of groundwater levels.

3.2.3 Undesirable Results for Degraded Water Quality

The basin-wide definition of undesirable results for degraded water quality is as follows:

> *The point at which significant and unreasonable impacts over the planning and implementation horizon, as caused by water management actions, that affect the reasonable and beneficial use of, and access to, groundwater by overlying users.*
>
> *This is determined when the minimum threshold for a groundwater quality constituent of concern is exceeded in at least three (3) adjacent management areas that represent at least 15% of the Subbasin or greater than 30% of the designated monitoring points within the basin. Minimum thresholds shall be set by each of the management areas through their respective management area plans and Groundwater Sustainability Plans.*

Within the Subbasin, a management area will be considered an undesirable results watch area for degraded water quality when it exceeds its minimum threshold criteria, as determined by each management area. The SSJMUD management area will be considered an undesirable results watch area for degraded water quality when 51% of the representative monitoring sites in a management area violate their minimum threshold for groundwater levels, since groundwater levels serve as a proxy for degraded water quality. If multiple undesirable results watch areas meet the criteria for a Subbasin undesirable result, as defined above, the Subbasin would be considered to be experiencing an undesirable result.

3.2.3.1 Potential Cause of Undesirable Results

Potential causes of undesirable results for degraded water quality vary throughout the Subbasin and within the Districts. Water quality in the Districts has been historically sustainable. In the future, water quality can be degraded by a significant increase in groundwater pumping or unforeseen point source contamination issues caused by natural or human activity.

3.2.3.2 Potential Effects of Undesirable Results

An undesirable result for degraded water quality could affect beneficial users. This could potentially reduce the amount of usable supply delivered to groundwater users and require the need for treatment systems, which could potentially have a negative economic effect.

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3.2.4 Undesirable Results for Land Subsidence

The basin-wide definition of undesirable results for land subsidence is as follows:

> *The point at which significant and unreasonable impacts, as determined by a subsidence rate and extent in the basin, that affects the surface land uses or critical infrastructure.*
>
> *This is determined when subsidence results in significant and unreasonable impacts to critical infrastructure as indicated by monitoring points established by a basin wide coordinated GSP subsidence monitoring plan.*

It is generally recognized that land subsidence is occurring within the Subbasin and also within SSJMUD. However, within SSJMUD management area described in this management area plan, no impacts to critical infrastructure have been identified. The lowering of groundwater levels within the SSJMUD area could potentially contribute to subsidence, as can the groundwater pumping from neighboring areas. As no impacts to critical infrastructure have been identified and because it is not clearly understood how groundwater pumping in different areas of the basin affects subsidence, SSJMUD has identified land subsidence as a data gap. As a result, no minimum thresholds are established for land subsidence at this time. SSJMUD will work cooperatively with the KGA and other GSAs in the Subbasin to collect additional data and develop a better understanding of the causes (amount and locations of groundwater pumping) and impacts to critical infrastructure. Minimum thresholds will be adopted by SSJMUD at such time that a clear understanding of the causes and effects can be developed.

3.2.4.1 Potential Cause of Undesirable Results

Land subsidence can be caused by several mechanisms, but the mechanism most relevant to sustainable groundwater management is the depressurization of aquifers and aquitards due to lowering of groundwater levels, which can lead to compaction of compressible strata and lowering of the ground surface. Therefore, the potential causes of the undesirable results of land subsidence are generally the same as the potential causes listed above for undesirable results due to chronic lowering of groundwater levels.

3.2.4.2 Potential Effects of Undesirable Results

Potential effects of land subsidence include damage to critical infrastructure including pipelines, roads, building, water conveyance systems, and flood control facilities. Damage to these systems could impact water delivery to surface water, resulting in increased groundwater use. Of primary concern to the District, is the impact of subsidence to the FKC. Subsidence affecting the canal is from groundwater pumping to the north of the Subbasin.

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3.2.5 Undesirable Results for Seawater Intrusion

The location of the Subbasin, as it is described in the KGA GSP's basin setting and the basin setting of this management area plan demonstrates that seawater intrusion is not under consideration for this management area or for the Subbasin at large because the Kern County Subbasin is located more than 60 miles from the nearest body of seawater. This separation precludes the possibility of seawater intrusion.

3.2.6 Undesirable Results for Interconnected Surface Streams

Due to the historic groundwater pumping in the Subbasin and the Tulare Lake Basin, in general, the groundwater elevations have lowered such that interconnected surface streams no longer exist in the KGA portions of the Subbasin. This information is presented in the KGA GSP basin setting and the basin setting in this management area plan.

3.3 Minimum Threshold

The following section sets the minimum threshold for each of the sustainability indicators applicable to the SSJMUD management area. Thresholds are discussed as a proposed minimum groundwater elevation that would exhibit undesirable results if groundwater elevations fall below the proposed thresholds for any sustainability indicator. Of the six sustainability indicators, seawater intrusion and interconnected surface water are not issues within the District, as indicated in the Basin Setting.

In accordance to §354.28 (d), the District thresholds with respect to groundwater elevations are used as a proxy for identifying undesirable results in groundwater storage, groundwater water quality, and land subsidence. Although groundwater storage in the basin is plentiful, it becomes uneconomical to obtain groundwater at certain depths. Therefore, SSJMUD has elected to maintain approximately 10-years of groundwater storage (by volume) above the minimum threshold for groundwater elevation to manage a 10-year operational drought, similar to the 2006-2016 historical period. With respect to water quality, water levels cause changes in concentration of constituents at different depths of water level per location. Subsidence is known to be caused by the dewatering clay layers (from water level decline) and can be represented by groundwater levels.

The minimum threshold values are determined by separating the basin underlying the SSJMUD management area into different hydrogeologic zones (HZs), areas with similar hydrologic and geologic conditions. The creation of the HZs was closely coordinated with those districts adjacent to the SSJMUD management area. Figures in Appendix E shows the distribution of HZs across the District's. Spring water level data spatially representative of individual HZs were plotted together and a linear trend was projected from 2006 to 2016 (historic 10-year drought period). Within the District's, all HZ groundwater elevation plots show a declining groundwater slope during the 2006-2016

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period. This 10-year period was then projected to 2040 with a unique equal slope for each HZ to estimate the resulting groundwater level if the 2006-2016 conditions persisted for the 20-year implementation period from 2020 through 2040. This methodology was chosen as it would represent a worst-case condition and present a case which could be evaluated by the District's stakeholders to understand what level of impact would be considered significant and unreasonable to individual stakeholder within each HZ. As previously stated, this methodology represents a worst-case scenario in terms of imported water supply deliveries and local hydrology. Figure 3-1 shows the change in groundwater elevation from 2015 to 2040 for North of the Kern River.

The 2040 conditions are set as the minimum threshold value. Figure 3-2 shows the estimated minimum thresholds in the SSJMUD management area. The projected 2040 water levels indicate the expected change to groundwater level with hydrology maintaining the 2006 to 2016 trend through 2040. This trend represents a worst-case scenario in which the District does not implement any management actions, or projects to mitigate pumping beyond what currently exists and is the case landowners/stakeholders were presented to determine which impacts would be significant and unreasonable. Through a series of workshops and individual meetings between the District's staff and landowners, the results of this projected future condition were reviewed with District's stakeholders. Based on the review and feedback from landowners and stakeholders, the District adopted the minimum thresholds and measurable objectives described in the following section.

3.3.1 The Chronic Lowering of Groundwater Levels

Minimum threshold values for chronic lowering of groundwater levels in SSJMUD are shown on Table 3-1. The minimum threshold values vary within the management area (and throughout the Subbasin) due to hydrology and the projected decreases in water levels, determined in each HZ. The management area contains multiple minimum thresholds depending on the hydrologic gradients and spatial distribution of the representative monitoring sites as shown in the tables above.

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Table 3-1: Minimum Thresholds for SSJMUD Monitoring Points

Well ID (1)	Latitude (2)	Longitude (3)	Minimum Threshold (4)
Management Area 1			
City of Delano			
Well 14	35.742	-119.242	-105
Well 23	35.790	-119.303	-113
Well 30	35.790	-119.231	-8
SSJMUD 66 Wells			
8	35.747	-119.336	-227
14	35.739	-119.205	-57
23	35.719	-119.304	-183
42	35.693	-119.232	-48
53	35.631	-119.191	-55
59	35.682	-119.152	-37
62	35.718	-119.145	-7

SSJMUD believes that the proposed minimum groundwater elevation will not cause undesirable results in the basin. The District will reevaluate the threshold based upon the District's ability to implement projects and management actions and, if necessary, will adjust the minimum threshold if they are able, to prevent causing an undesirable result in the basin.

In determining the minimum threshold, the impact of lowering water levels to the proposed minimum threshold was analyzed by using available well construction data for agriculture, municipal, and domestic wells. The well impact analysis of the equivalent minimum threshold average values (represented as depth to water values) for each HZ was used to determine that a portion of the existing wells are impacted to varying extents. Most wells are expected to be operational (even with a decrease in efficiency) as the bottom of the screens remain in the water. This can be observed in Figure 3-3 for agricultural wells, Figure 3-4 for domestic wells, and Figure 3-5 for municipal wells.

Although the data presented is a subset of the total wells in the Districts' management areas, it is reasonable to assume that many wells will maintain operation even at the proposed minimum threshold values. The projected minimum threshold depths to water were reviewed with landowners within SSJMUD, along with the well impact analysis, to determine if it would be economical to mitigate the impacts of agricultural, domestic, and municipal wells.

It was determined that at the average 2040 water levels, impacts to agricultural wells could and would be mitigated by landowner to the extent that declining groundwater levels was created by localized actions by those landowners. It was determined that none

of the identified agricultural water wells within the SSJMUD management area would be dewatered, however in many instances water levels near the minimum threshold would require lowering of pump bowls.

It was also identified that if water levels were to fall to levels near the minimum threshold then mitigation would be necessary to address the impacts to the few impacted domestic wells in the area. Any further decrease in water level below the established minimum threshold would create a significant and unreasonable impact to overlying groundwater users and would cause an undesirable result. In normal operating conditions, the extent of impact to wells is expected to be less as water levels are expected to be at higher elevations than the minimum threshold. However, the analysis determined it is possible for the District to drop water levels to the established minimum threshold values and not have undesirable results that cannot be mitigated.

3.3.2 Groundwater Storage

The minimum threshold for groundwater storage was set in conjunction with the minimum threshold for the groundwater level. In this Subbasin groundwater storage is not a significant issue regarding water supply since there is enough storage in the Subbasin to use beyond the set minimum threshold, but access is reduced based on what is economical to currently extract. The minimum thresholds impact to groundwater users for reduction of groundwater storage are the same as those for the chronic lowering of groundwater based on the ability to economically access the water and the proposed water levels are not expected to cause an undesirable result.

3.3.3 Degraded Water Quality

A minimum threshold for degraded water quality has not been set because historical data used to evaluate groundwater conditions does not indicate lowered water levels, at least at levels observed to date, resulting in degraded water quality. Regardless, groundwater sampling will continue: monitoring sites and parameters were strategically selected to inform on future degradation. As defined in Section 4, Monitoring Networks, water quality sampling coincides with groundwater levels. This approach is expected to provide clear correlations between water quality and groundwater levels. Because historical data does not reveal any trends showing an undesirable result, no minimum threshold has been established for water quality.

3.3.4 Subsidence

The minimum threshold for land subsidence is set equivalent to the chronic lowering of groundwater levels minimum threshold. Land subsidence currently occurs and is expected to continue with lowering of groundwater levels. The proposed water levels are unknown to cause an undesirable result regarding subsidence. In the future, when more consistent and better calibrated data is available, it may be necessary to adjust the

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minimum threshold dependent on what new information is available. Information needed are specifically the magnitude of subsidence around facilities and infrastructure, which are areas that may cause a significant economic problem affecting water users and others. In the future, minimum thresholds will be derived from monitoring programs implemented to increase the available data in suspected critical areas and to calibrate spatial data available.

Current data available for the Subbasin indicates that subsidence varies throughout the Subbasin. Within the jurisdictional area of SSJMUD, higher rates of subsidence occur in the northwestern portion of SSJMUD increasing North towards the Tule Basin and West to SWSD. While these rates of subsidence are higher than the rest of the area covered in this management area plan, they have not been identified as significant or unreasonable.

3.4 Measurable Objectives and Interim Milestones

The measurable objective is established in accordance to regulation §354.30 (d), groundwater elevations can serve as the value for multiple sustainability indicators where the representative value is a reasonable indicator for multiple measurable objective. As with the minimum threshold, measurable objective values were not established for depletion of interconnected surface water and sea water intrusion as these are not applicable to the basin.

The measurable objective values are determined in the same manner as explained in Section 3.3 for the minimum threshold with the exception that the measurable objective is set at 2030 water levels per the methodology described above. For the SSJMUD management area, the measurable objective is the adopted goal to maintain groundwater levels at or above the interpolated 2030 water levels. The measurable objective is a ten-year rolling average of the groundwater elevation at any given monitoring site, that represents the proposed groundwater elevation at which SSJMUD plans to maintain for sustainability.

Figure 3-6 shows the change in groundwater elevations from 2015 to 2030 for North of the Kern River. Setting the measurable objective at the 2030 water level was determined based on the margin of safety giving the District's an approximate storage of 10-years (may vary significantly) of water supply in the instance the District is faced with a similar water supply situation as experienced during the 2006 to 2016 drought.

The interim milestones are the points at which the District plans to set their water level to reach the sustainability goal at the district level within 20 years of the plan implementation. The milestones are set every five years and are based on a linear trend to reach the measurable objective values by 2040, as shown in Figure 3-7 for the SSJMUD management area. The District will implement projects and management actions to maintain a path along the interim milestones and to meet the measurable objectives. The

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time frame for implementation of management actions and projects are discussed in this section.

3.4.1 The Chronic Lowering of Groundwater Levels

The measurable objective for the chronic lowering of groundwater levels is set at projected 2030 water levels and are monitored at the specific monitoring points. The measurable objective in each management area are monitored at various location. The established measurable objective values are determined from the 2030 water level contours and are shown for each representative monitoring point as shown in Table 3-2 for the SSJMUD management area. Figure 3-7 shows the measurable objectives along with minimum thresholds in the SSJMUD management area.

The proposed measurable objective will allow the District to operate in a worst-case scenario drought condition (2006 to 2016 conditions) and maintain operation before approaching the minimum threshold for an approximated 10 years. Prior to 10 years, the District would have the ability to implement projects or perform emergency actions to reduce pumping.

The measurable objective, like the minimum threshold values vary within the management area (and the basin) due to hydrology and the projected decrease in water level determined in each HZ subzone. The Management area contains multiple measurable objectives dependent on hydrologic gradients and spatial distribution.

The interim milestones were determined trending a linear trend to reach the measurable objective by 2040. The steps to reach the measurable objectives will be set by the interim milestones which are checked every five years during the plan's implementation. At these points, projects and management actions will be taken to reduce the reliance on groundwater supply. Section 5 contains details of the projects and management actions which will be used to achieve the interim milestones every five- years. A linear interpolation between the 2015 spring groundwater levels and the measurable objective (2030 water level projections) are used in setting the interim milestones.

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Table 3-2: Measurable Objectives for SSJMUD Monitoring Points

Well ID (1)	Latitude (2)	Longitude (3)	Measurable Objective (4)
Mangement Area 1			
City of Delano			
Well 14	35.742	-119.242	-197
Well 23	35.790	-119.303	-215
Well 30	35.790	-119.231	-101
SSJMUD 66 Wells			
8	35.747	-119.336	-329
14	35.739	-119.205	-136
23	35.719	-119.304	-278
42	35.693	-119.232	-123
53	35.631	-119.191	-131
59	35.682	-119.152	-112
62	35.718	-119.145	-83

3.4.2 Groundwater Storage

The measurable objective for the reduction in groundwater storage is based on the measurable objective for the chronic lowering of groundwater levels. In setting the measurable objective at the 2030 projection and the minimum threshold at the 2040 water level projection (based on the historical drought), approximately 10 years of storage is available to the District before reaching the minimum threshold, this was set as a factor of safety. A linear interpolation between the 2015 spring groundwater levels and the measurable objective (2030 water level projections) are used in setting the interim milestones.

3.4.3 Degraded Water Quality

The measurable objective for degraded water quality is based on the measurable objective of chronic lowering of groundwater levels. A linear interpolation between the 2015 spring groundwater levels and the measurable objective (2030 water level projections) are used in setting the interim milestones. While this data shows a significant decrease in water level, impacts to water quality cannot be quantified because available data does not indicate that water quality degrades when water levels decline in the SSJMUD District.

3.4.4 Land Subsidence

The measurable objective for land subsidence at this time is based on the measurable objective of chronic lowering of groundwater levels. As mentioned in Section 2.3.5, the magnitude and severity of subsidence is unknown, and data is needed to be collected to ensure the set reasonable measurable objective and minimum threshold. The data will be

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reviewed at the five-year intervals. A linear interpolation between the 2015 spring groundwater levels and the measurable objective (2030 water level projections) are used in setting the interim milestones.

3.5 Margin of Operational Flexibility

The margin of operational flexibility between the measurable objectives and the minimum thresholds is a designated 10-year drought water supply. The flexibility in the system is the amount of time to implement projects to bring in additional surface water supply or to reduce groundwater demand to maintain groundwater levels above the minimum thresholds. Table 3-3 shows example of the District's operational flexibility to maintain above the minimum thresholds through voluntary management actions, such as a fallowing or land retirement program.

Table 3-3. Example District Operational Flexibility

Sustainability Component	Categories of Projects & Management Actions
Water Demand	Incentives of pumping reduction
	Fees for landowner excess pumping
	Water Market Response
	Buy Back Program
Water Supply	Import Water Supply
	Recharge Projects
	Surface Water Capture
	Other Projects

In instances where voluntary programs are not being utilized or are proven to be ineffective in the reduction of groundwater demand, more drastic measures will be taken. These measures may include mandatory pumping reduction and land fallowing. In instances where neighboring management areas differ on their sustainable management criteria, having a greater difference between the measurable objective and the minimum threshold will allow for more operational flexibility within the District so they may take action prior to reaching the minimum threshold and/or potentially negatively affecting adjacent management areas. In addition, neighboring management areas which approach their minimum thresholds may have less impact on the Districts' management area due to the larger range between the measurable objective and the minimum threshold for a given representative monitoring site, which allows for approximately 10-years of water level decline.

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3.6 Potential Effects beyond Management Area

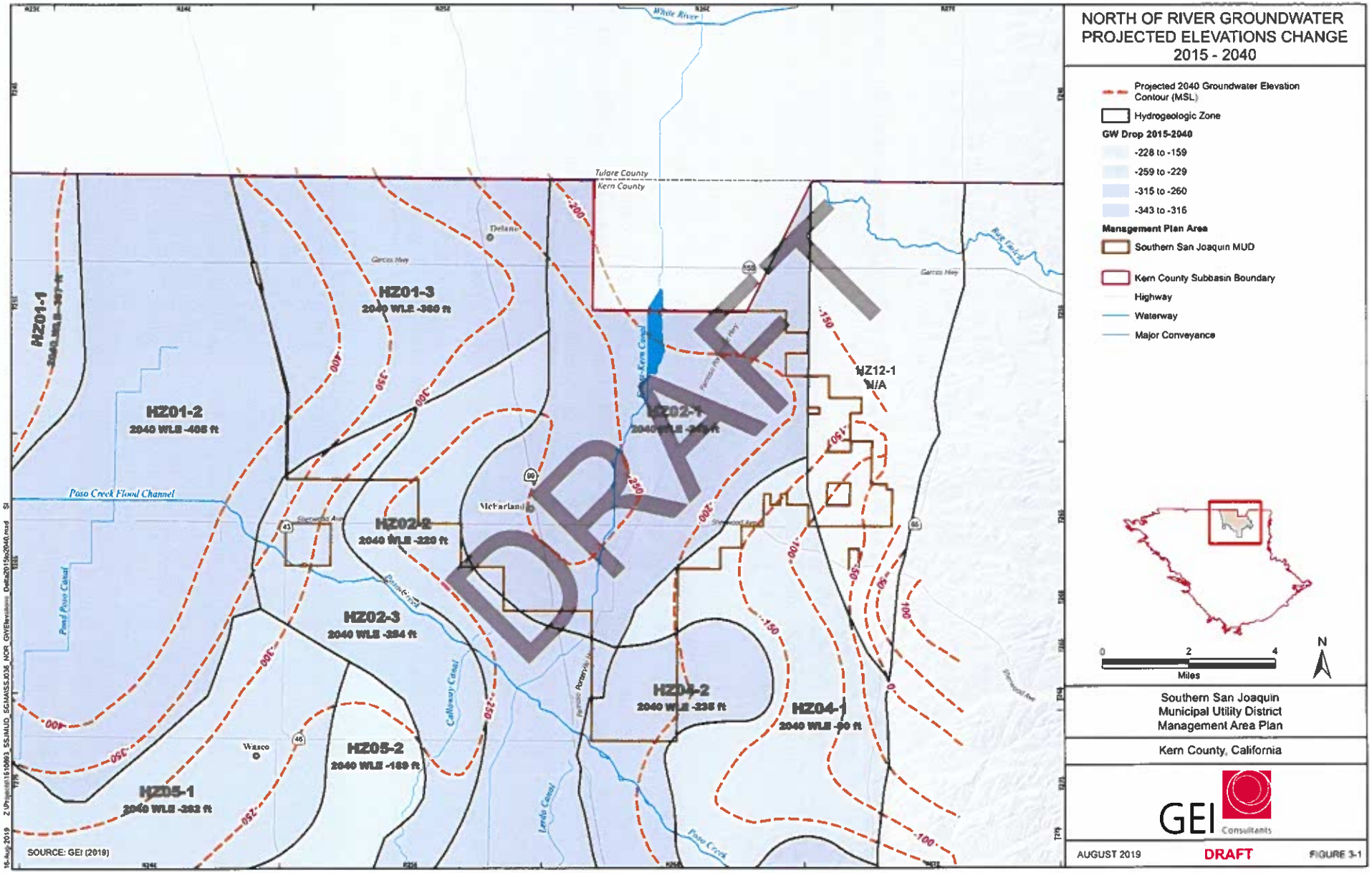
The setting of the minimum thresholds and measurable objectives described in this management area plan is coordinated with neighboring Districts to maintain a similar water level gradient as 2015 conditions. It is not expected to severely affect areas outside of the District in terms of significantly changing the surrounding water levels either lower, or higher, than conditions of neighboring Districts' plans. Also, the change in groundwater storage is correlated with the change in groundwater levels and is not expected to cause severe impact to neighboring Districts or GSAs.

Subsidence is a potential impact to neighboring Districts, GSAs, and subbasins. This extent is currently unknown, and more data needs to be collected to determine where the impacts may occur and what is contributing to these impacts.

Water quality data used to characterize groundwater conditions does not indicate that water quality degrades when groundwater levels decline. Regardless, a sampling program has been established to monitor changes in water quality related to water levels. No minimum threshold or measurable objective is set because degradation has not been observed.

Degraded water quality within SSJMUD is defined as an increasing trend in salinity (sodium and chloride) that potentially threatens agriculture viability within the district; or concentrations of nitrate, arsenic or hexavalent chromium exceeding the respective drinking water standard, because of declining water levels. While these constituents are present throughout the district, the overall trends indicate lower concentrations with lower water levels. In contrast, higher concentrations are typically observed with higher water levels.

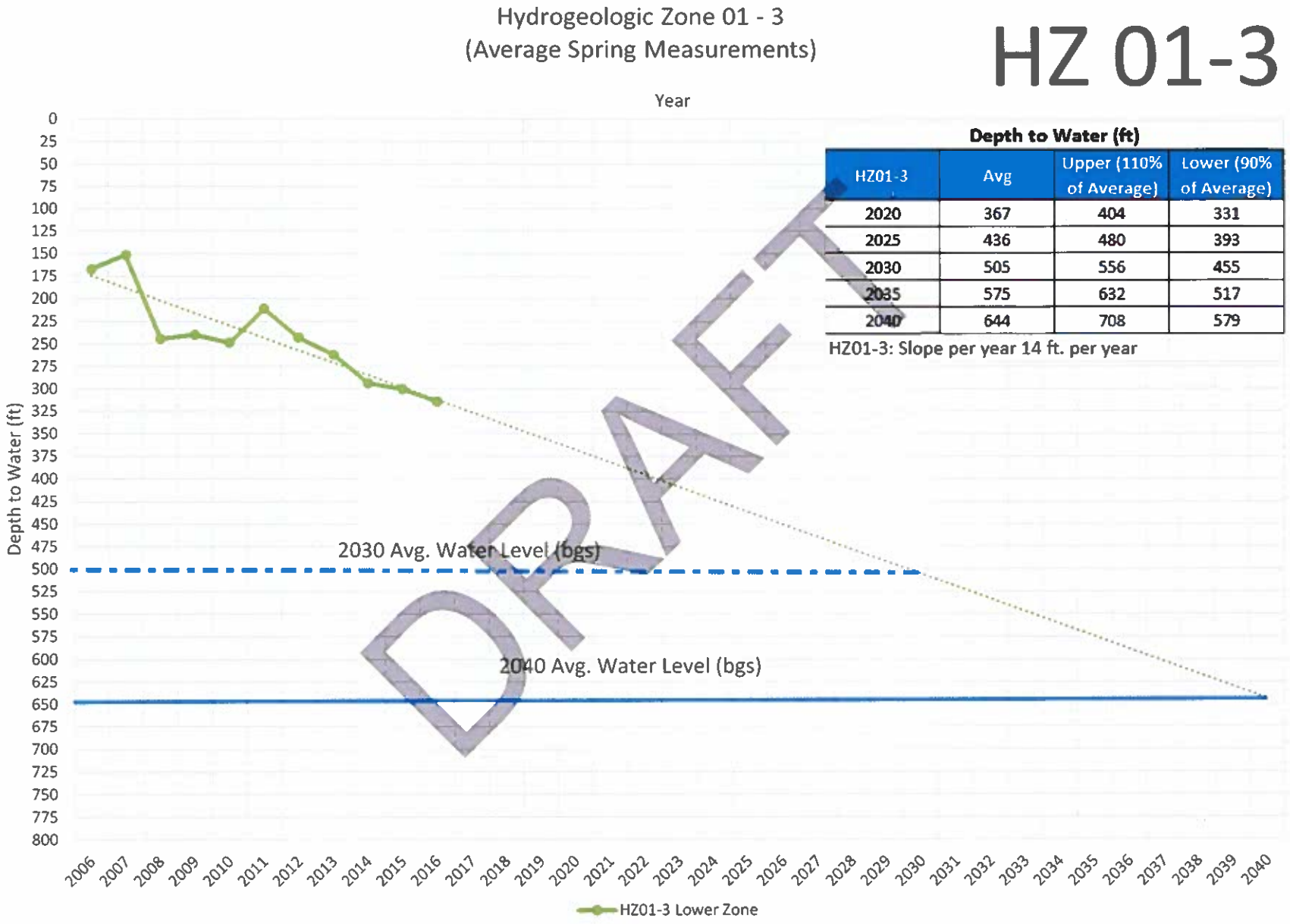
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NORTH OF RIVER GROUNDWATER
PROJECTED ELEVATIONS CHANGE
2015 - 2040
Projected 2040 Groundwater Elevation Contour (MSL)
Hydrogeologic Zone
GW Drop 2015-2040
-228 to -159
-259 to -229
-315 to -260
-343 to -316
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
HZ01-1
HZ01-2
2040 WLE -405 ft
HZ01-3
2040 WLE -366 ft
HZ02-1
HZ02-2
2040 WLE -229 ft
HZ02-3
2040 WLE -284 ft
HZ04-1
2040 WLE -90 ft
HZ04-2
2040 WLE -225 ft
HZ05-1
2040 WLE -282 ft
HZ05-2
2040 WLE -169 ft
HZ12-1
N/A
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Tulare County
Kern County
White River
Delano
McFarland
Wasco
Poso Creek Flood Channel
Pond Poso Canal
Garces Hwy
Cawelo Main Canal
Calloway Canal
Lerdo Canal
Pond Creek
Shafter Ave
Stockdale Hwy
Rosedale Hwy
Buck Creek
Miles
N
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 3-1
SOURCE: GEI (2019)

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HZ 01-3



Depth to Water (ft)

HZ01-3	Avg	Upper (110% of Average)	Lower (90% of Average)
2020	367	404	331
2025	436	480	393
2030	505	556	455
2035	575	632	517
2040	644	708	579

HZ01-3: Slope per year 14 ft. per year

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Figure 3-2

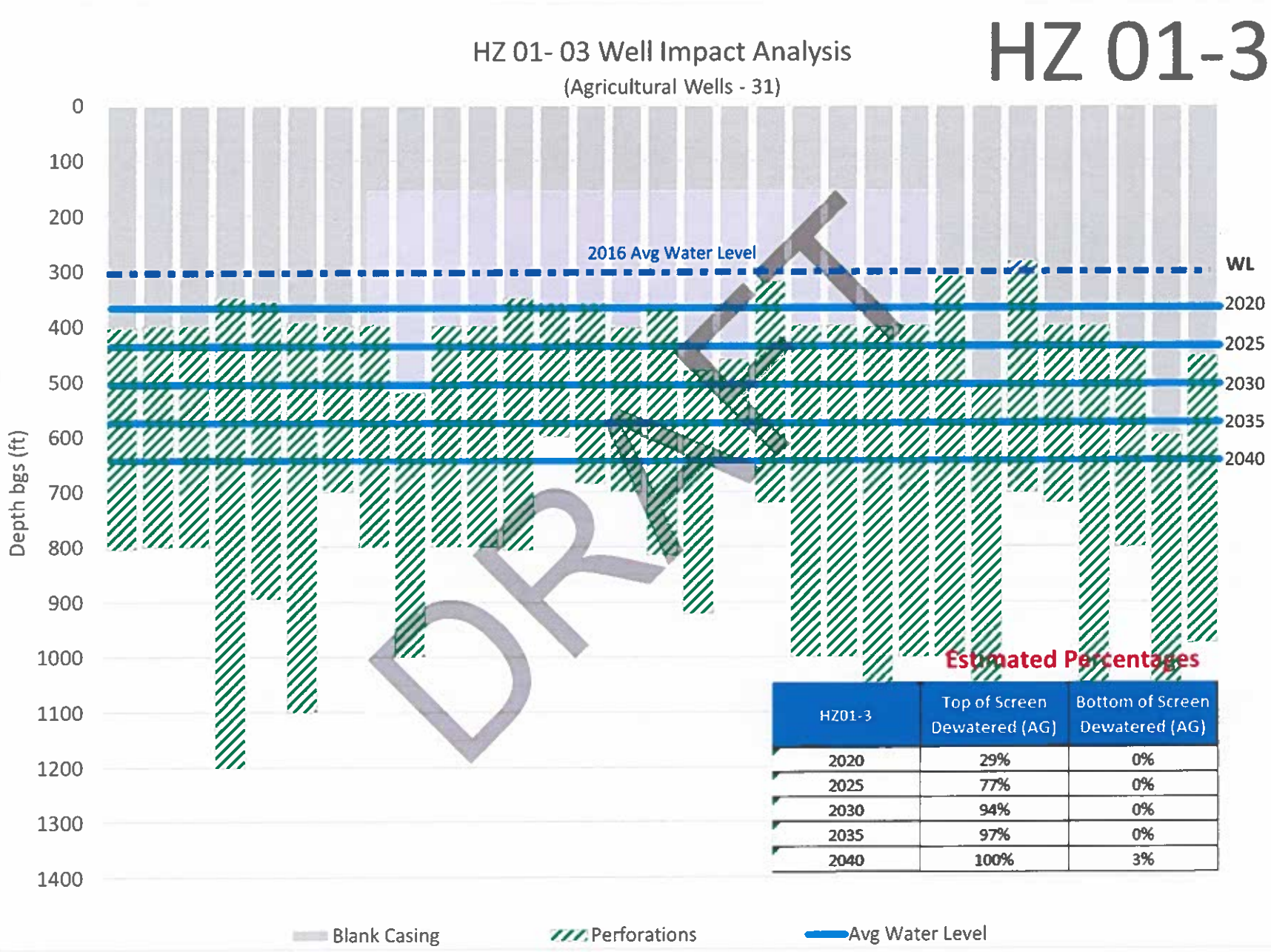
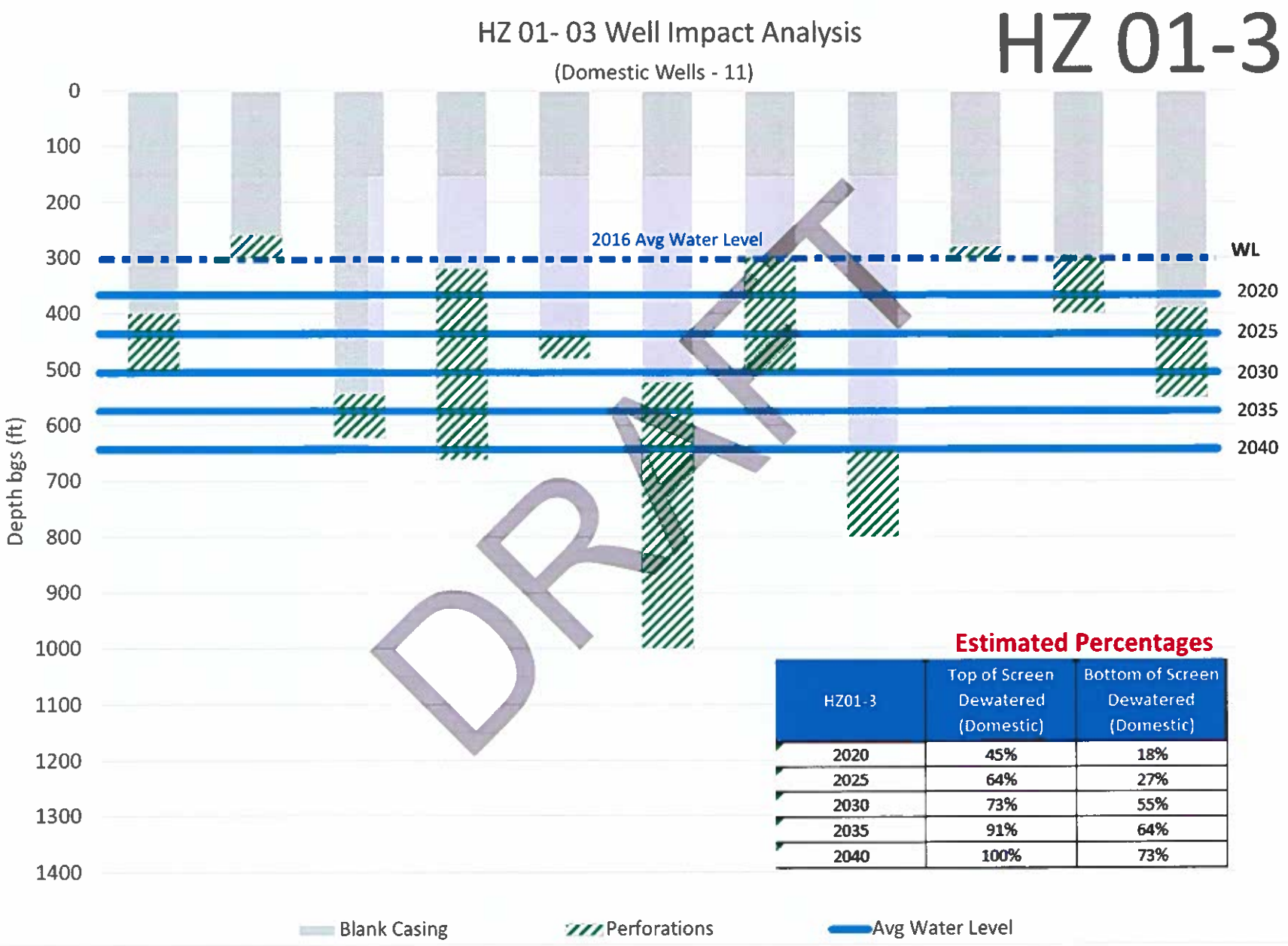

HZ 01- 03 Well Impact Analysis
(Agricultural Wells - 31)
HZ 01-3
Depth bgs (ft)
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
2016 Avg Water Level
WL
2020
2025
2030
2035
2040
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Estimated Percentages
HZ01-3 | Top of Screen Dewatered (AG) | Bottom of Screen Dewatered (AG)
2020 | 29% | 0%
2025 | 77% | 0%
2030 | 94% | 0%
2035 | 97% | 0%
2040 | 100% | 3%
Blank Casing
Perforations
Avg Water Level

Figure 3-3



Estimated Percentages

HZ01-3	Top of Screen Dewatered (Domestic)	Bottom of Screen Dewatered (Domestic)
2020	45%	18%
2025	64%	27%
2030	73%	55%
2035	91%	64%
2040	100%	73%

Figure 3-4

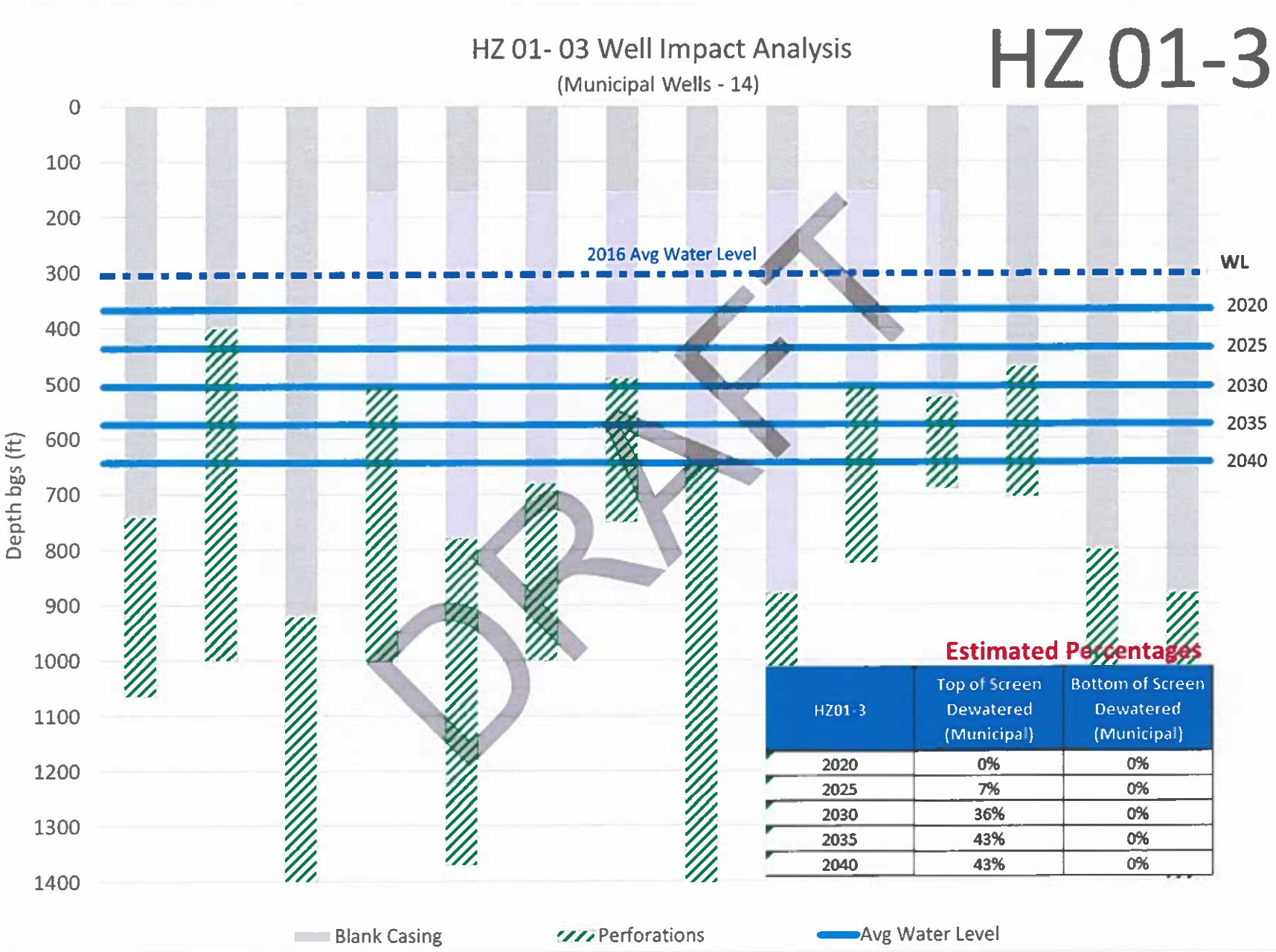
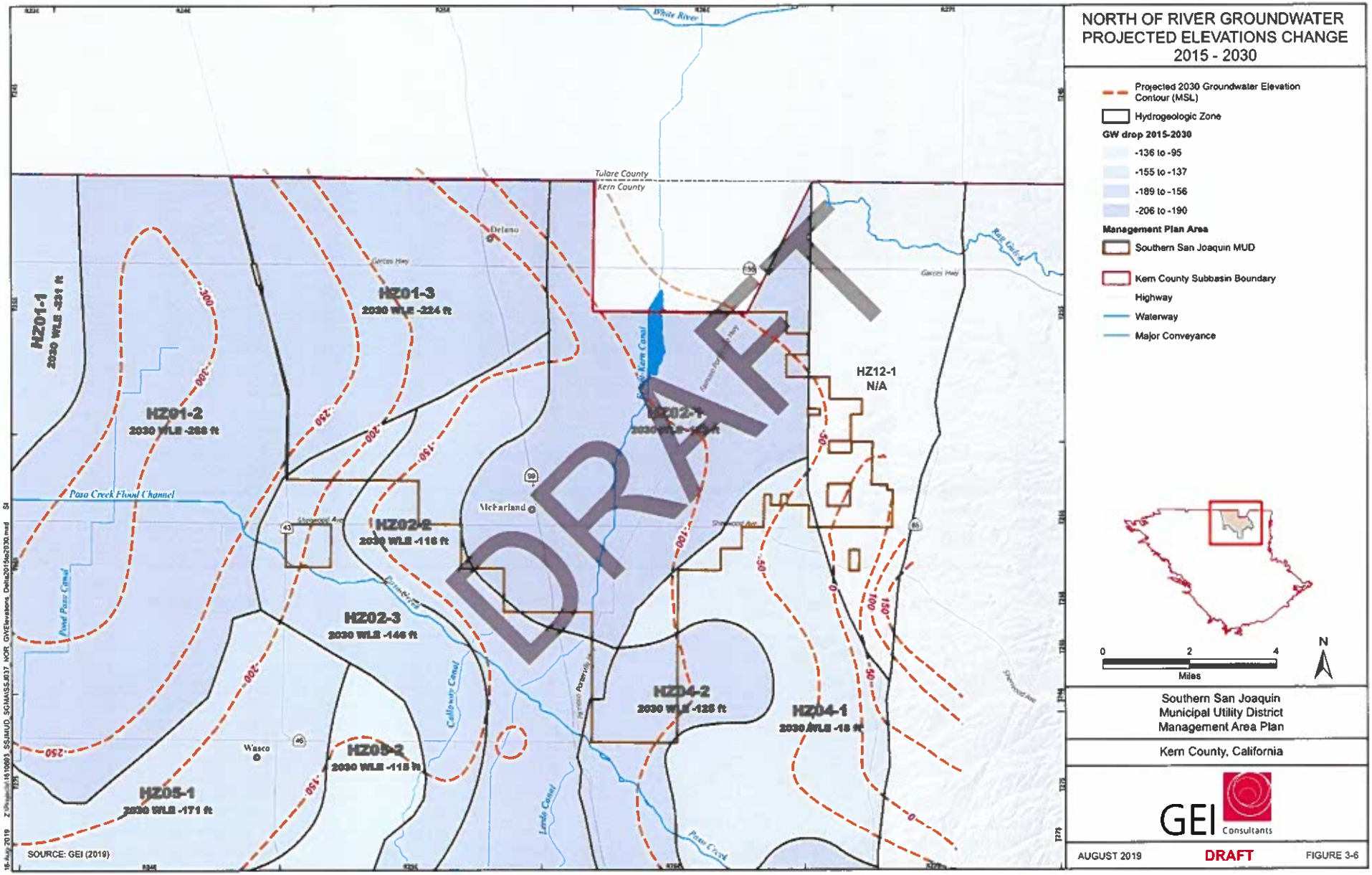

HZ 01- 03 Well Impact Analysis
(Municipal Wells - 14)
HZ 01-3
Depth bgs (ft)
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
2016 Avg Water Level
WL
2020
2025
2030
2035
2040
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Estimated Percentages
HZ01-3
Top of Screen Dewatered (Municipal)
Bottom of Screen Dewatered (Municipal)
2020 0% 0%
2025 7% 0%
2030 36% 0%
2035 43% 0%
2040 43% 0%
Blank Casing
Perforations
Avg Water Level

Figure 3-5


NORTH OF RIVER GROUNDWATER
PROJECTED ELEVATIONS CHANGE
2015 - 2030
Projected 2030 Groundwater Elevation Contour (MSL)
Hydrogeologic Zone
GW drop 2015-2030
-136 to -95
-155 to -137
-189 to -156
-206 to -190
Management Plan Area
Southern San Joaquin MUD
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
HZ01-1
2030 WLE -231 ft
HZ01-2
2030 WLE -288 ft
HZ01-3
2030 WLE -224 ft
HZ02-1
2030 WLE -144 ft
HZ02-2
2030 WLE -116 ft
HZ02-3
2030 WLE -146 ft
HZ04-1
2030 WLE -18 ft
HZ04-2
2030 WLE -126 ft
HZ05-1
2030 WLE -171 ft
HZ05-2
2030 WLE -115 ft
HZ12-1
N/A
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Tulare County
Kern County
White River
Delano
McFarland
Wasco
Paso Creek Flood Channel
Pond Poso Canal
Cawelo Canal
Lerdo Canal
Paso Creek
Shannon Ave
Garces Hwy
0
2
4
Miles
N
SOURCE: GEI (2019)
Southern San Joaquin
Municipal Utility District
Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
DRAFT
FIGURE 3-6

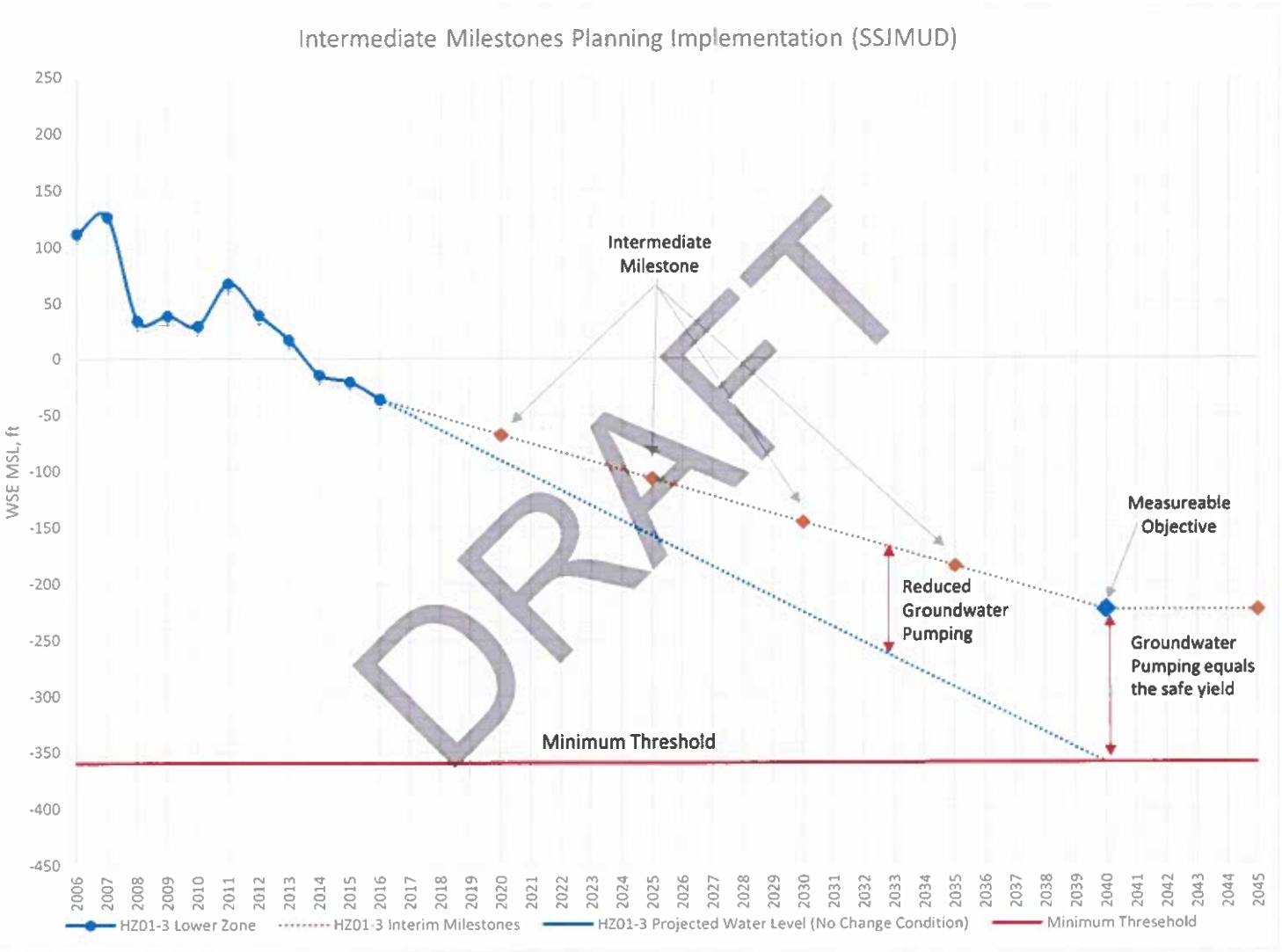

Intermediate Milestones Planning Implementation (SSJMUD)
WSE MSL, ft
250
200
150
100
50
0
-50
-100
-150
-200
-250
-300
-350
-400
-450
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
Intermediate Milestone
Measureable Objective
Reduced Groundwater Pumping
Groundwater Pumping equals the safe yield
Minimum Threshold
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HZ01-3 Lower Zone
HZ01-3 Interim Milestones
HZ01-3 Projected Water Level (No Change Condition)
Minimum Threshold

Figure 3-7

4. Monitoring Networks

This chapter describes the objectives, design, rationale, monitoring protocols, and data reporting requirements of the monitoring network to be implemented. This chapter discusses any data gaps, and a plan for assessment and future improvement to the monitoring network to fill data gaps.

The monitoring network and protocols are designed to collect data of sufficient quality, frequency, and distribution to characterize the groundwater and change in storage of the District, along with water budget components in SSJMUD, and to evaluate changing conditions due to water management actions and future water supply projects.

4.1 Monitoring Network Objectives

The monitoring network in the District is designed to meet the following monitoring objectives of this plan:

- Monitor impacts of groundwater pumping on beneficial uses and users of groundwater,
- Monitor progress toward measurable objectives of this plan relative to minimum thresholds,
- Collect data to quantify annual changes in water budget components of the study area, and
- Monitor changes in groundwater conditions relative to the pertinent sustainability indicators:
    - Groundwater Potentiometric Surfaces, or Groundwater Levels,
    - Groundwater Storage,
    - Groundwater Quality, and
    - Land Subsidence

4.1.1 Water Level Monitoring as a Key Sustainability Indicator

As described in the Section 3 of this management area plan, groundwater elevation is the key sustainability indicator for undesirable results in the Subbasin because lowering of groundwater levels leads to:

- increased groundwater well pumping costs,
- decrease in groundwater storage,
- increased land surface subsidence most notably where fine-grained units and active groundwater overdraft are present, and

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- potential changes in groundwater quality.

The groundwater level monitoring network is key to informing the progress of the management area plan's objectives for all sustainability indicators. While water levels are the key sustainability indicator for which minimum thresholds have been established, the monitoring network continues to include data collection stations for water quality, land subsidence, and other water budget components such as water demand and water supply inputs. The following sustainability indicators are not pertinent to this management area plan: seawater intrusion and depletions of interconnected surface water. Seawater intrusion is anticipated to not be a problem since the District is several miles from the ocean. For details on depletions of interconnected surface water, please refer to Section 2.3.6.

4.1.2 Monitoring Progress toward Measurable Objectives

The monitoring network will inform progress of sustainable management to reach interim milestones and measurable objectives. As described in Section 5.3 of this management area plan, groundwater levels are the primary indicator for which minimum thresholds have been set, and for which interim milestones and measurable objectives will be compared. However, all sustainability indicators identified in this management area plan and in the KGA Umbrella GSP are included in the monitoring network. As groundwater level monitoring progresses, effects on other indicators can be evaluated. Tracking the progress of water levels as well as other indicators will inform the effectiveness of water management actions and implemented projects. The details for how the measurable objectives and minimum thresholds were developed for groundwater levels are described in Section 3 of this Plan.

Monitoring the progress toward reaching interim milestones and measurable objectives will provide information needed to evaluate whether adjustments to management actions and the monitoring networks are required. Tables 3-1 and 3-2 show the minimum threshold and measurable objective for each monitoring site included as part of this Management Area Plan's network. As stated in §354.34(g)(3), minimum thresholds, measurable objectives, and interim milestones will be established at each monitoring site or representative monitoring site. Where needed, interim milestones for groundwater levels or other sustainability indicators may be adjusted in the five-year updates in order to maintain the objectives of this management area plan.

4.1.3 Potential Impacts to Beneficial Uses and Users of Groundwater

The monitoring network to be implemented will provide data to monitor the impacts of sustainable groundwater management on beneficial uses and users of groundwater, as well as secondary impacts such as land subsidence. A summary of potential impacts is included below in Table 4-1.

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Table 4-1. Potential Impacts of Overdraft with Corresponding Monitoring

User Group	Potential Impacts	Monitoring and Data Collection
Irrigated Agriculture	• Increased pumping costs and maintenance • Decrease in groundwater storage	• Water level monitoring • Incorporate data into the Subbasin model to monitor storage outlooks with interim milestones
	Increased salinity in the upper and migration into the lower zone	Water quality monitoring
Industrial, Commercial, and Residential Wells	• Increased pumping costs and maintenance • Well Dewatering • Decrease in groundwater storage	• Water level monitoring • Incorporate data into the Subbasin model to monitor storage outlooks with interim milestones
	Increased Arsenic	Water quality monitoring
	Increased TCP and Nitrates	Water quality monitoring in lower aquifer zone
Public Facilities	Damaged infrastructure	Land subsidence monitoring
Groundwater Dependent Ecosystems (Preliminary NCCAG mapped dataset).	• Decline in shallow groundwater levels • Reductions in shallow groundwater storage due to groundwater pumping	• Water level monitoring • Confirm NCCAG mapped areas by field survey and evaluation • If applicable, compare pumping in the upper and lower zone with water levels in the shallow zone

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4.1.4 *Monitoring Network for Water Budget Components*

One of the objectives of the monitoring network is to monitor the water budget components in order to quantify the change in water budget over time. This aspect of the network will rely on local monitoring stations for water levels, but also regional weather stations and remote sensing methods for consumptive use. In addition, water supply and exports accounting are required to monitor the water budget components. These aspects of the network are briefly described below.

4.1.4.1 Water Inflow to the Subbasin

As described in the water budget section of the report, water inflow to the Subbasin within the Districts includes:

- Surface water supplies (both imported and natural), that satisfies consumptive use, or becomes managed or unmanaged direct recharge to the Subbasin
- Precipitation

- Subsurface inflow

Surface Water Supplies

SSJMUD monitors all water received via the Friant-Kern Canal, and neighboring districts, at conveyance interties. The District performs monitoring using metering, or other gauging methods.

All imported surface water into the Districts, whether it is contracted and will be used for direct consumptive use, other exchanges, in-lieu banking, oil produced water, or direct recharge counts as water inflow to the Subbasin. Surface water diversions and imports are monitored by the Districts and are available annually to be incorporated in data evaluation.

Precipitation

Depending on the water year, precipitation may account for recharge as well as consumptive use in the Subbasin. It is a component of water budget accounting that is monitored by weather stations. The following weather stations (Table 4-2) may be used for monitoring purposes in or near the Subbasin. Online weather station data are updated daily to monthly.

Table 4-2. Weather Stations within the Vicinity.

Station Name	ID	Latitude	Longitude	Elevation (feet msl)	Other
Shafter	CIMIS 5	35.532656	-119.281790	360	
Delano	CIMIS 182	35.8330	-119.255960	300	Just north of Subbasin.

Source: https://cimis.water.ca.gov/Stations.aspx

Subsurface Inflow

Historical quantities of groundwater inflow to the Subbasin underlying the study area have been estimated in various regional models, calculated in local studies by Darcian Law, and may be estimated in the future by water budget accounting.

As a model of the study area is refined, groundwater inflow calculations may become more accurate. In addition, annual water budget accounting as well as semiannual water elevation monitoring, contouring and gradient estimating, will continue to provide data to support estimates of groundwater inflow.

4.1.4.2 Water Out of the Subbasin

As described in the water budget section of the report, water outflow or removal from the Subbasin within the District includes:

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- Consumptive use from crop demand, other vegetation, evaporation, and other beneficial use such as water recreation, domestic use, municipal or industrial use, etc.
- Exported water or "Pump Back"
- Subsurface outflow

Consumptive Use

Sources of water for consumptive use include diverted surface water, precipitation, and groundwater. As described in the water budget section of this plan, consumptive use from crop demand, other vegetation, and evaporation has been calculated from remote sensing techniques (GEI, 2017; ITRC-METRIC) with periodic ground truthing. The District continues to use remote sensing methodology to further quantify consumptive use within the study area for monitoring (Land IQ, 2019). The Subbasin will continue to coordinate techniques and methodology for monitoring consumptive use to update water budget components for the Subbasin.

Exported Water, "Pump back" Water

The District monitors water that leaves the study area for banking partners or exchanges by metering or other gauging methods. These data are included in annual accounting of the water budget and will continue to be available in the future.

Subsurface Outflow

Historical quantities of groundwater outflow to the Subbasin underlying the study area have been estimated in various regional models, calculated in local studies by Darcian Law, and estimated by water budget accounting.

As the model of the study area is refined, groundwater outflow calculations may become more accurate. In addition, annual water budget accounting as well as semiannual water elevation monitoring, contouring and gradient estimating, will continue to provide data to support estimates of groundwater outflow.

4.2 Monitoring Network Design

The monitoring network design considers the use of existing monitoring networks, and the coverage required to monitor areas within the District with current and projected groundwater use. The network to be implemented is also designed to have new locations installed for data collection to fill pertinent data gaps in groundwater conditions.

The monitoring network is designed to collect data with respect to the applicable sustainability indicators in the study area: groundwater levels and reduction of groundwater storage, degraded water quality, and land subsidence. Seawater intrusion

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and interconnected surface waters are not applicable sustainability indicators in the study area, as described in the basin setting of this report, and are therefore, not included in the design of this monitoring network. A brief summary of the network design is introduced below. Details are provided in the sections on the monitoring of sustainability indicators.

4.2.1 Monitoring Frequency Design

The monitoring frequency is outlined in the protocols for monitoring sustainability indicators. In general, monitoring will occur semiannually for groundwater and monthly for land subsidence with co-located groundwater gauging. This frequency provides sufficient short-term, seasonal, and long-term data to evaluate the effectiveness of management actions.

4.2.2 Spatial Density Design

The spatial density of the monitoring network design accounts for general representative distribution in the district. The District's management area includes agricultural land, as well as the Cities of Delano and McFarland.

The spatial distribution of the water level monitoring sites is presented on Figure 4-1. For additional details on the spatial density for each of the monitoring sites, refer to the sections below on the monitoring of sustainability indicators.

4.2.3 Rationale for Design

Rationale regarding the design of the monitoring network is provided in the sections below dedicated to each sustainability indicator. In general, monitoring stations were chosen based on the following scientific rationale:

- Aquifer representation – Per DWR guidelines §354.34, monitoring wells were chosen to represent each underlying aquifer under the jurisdiction of the District
- Potential impacts to beneficial users of groundwater
- Availability of site-specific historical data and technical information
- Spatial and vertical representation
- Site accessibility

Additionally, monitoring stations were chosen based on providing suitable spatial density and representation of both agricultural and urban areas. Groundwater contour maps, hydrographs, land subsidence, and groundwater quality maps in the basin setting provide the background for current hydrogeologic conditions and where data gaps are located. Further discussion of data gaps is provided in the sections on sustainability indicators below.

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4.3 Monitoring Network

4.3.1 Chronic Lowering of Groundwater Levels and Reduction of Groundwater Storage

SSJMUD network of wells for monitoring water levels, water quality, and groundwater storage changes are included on Table 4-3 and Figure 4-1. Table 4-3 provides about the well type, reference point elevation, etc. The wells selected are predominately CASGEM wells which will be used as interim well sites for monitoring which will be gauged at a minimum frequency of two times per year (Spring and Fall). This frequency will capture the seasonal high and seasonal low conditions, per §354.34.

4.3.1.1 Rationale

The District's monitoring network design and site selection for monitoring the groundwater levels was based on the same rationale outlined in section 4.3.1 of this chapter. Since the District owns both agricultural production wells, and monitoring wells, an additional column has been added in the table to indicate the level of compliance with the DWR Best Management Practices guidelines for monitoring networks (DWR, 2016). The level of compliance has been categorized as Interim wells.

Interim wells (originally designed and constructed as agricultural production wells) were selected for the network to provide adequate spatial distribution until a permanent dedicated monitoring well can be installed. These interim wells generally have water level gauging data reported historically; however, not all of them have available well construction data. Interim wells selected were chosen based on spatial location to fill gaps in the monitoring network.

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Table 4-3. SSJMUD Water Level and Water Quality Monitoring Network

Well No.	DMS ID	T-R-S	Latitude	Longitude	RP Elev. (ft MSL)	Coord Source	Monitoring Type	Owner	Management Area Plan Well Monitoring Status	To be replaced	Management Area Plan Parameters Type	Year Constructed	Borehole Depth (ft)	Well Depth (ft)	Perforated Interval (ft)	Annular Seal (ft)	Casing Diameter (in)	Aquifer Zone
SSJMUD Well 8	--	25S-24E-13P2	35.74702	-119.336	259	District	Supply Well	Private	Interim	Yes	WL and WQ	--	--	--	--	--	--	Main Production
SSJMUD Well 14	--	25S-26E-19J1	35.73948	-119.205	351	District	Supply Well	Private	Interim	Yes	WL and WQ	--	--	--	--	--	--	Main Production
SSJMUD Well 23	--	25S-25E-29R2	35.7185	-119.304	292	District	Supply Well	Private	Interim	Yes	WL and WQ	--	--	--	--	--	--	Main Production
SSJMUD Well 42	--	25S-26E-01P2	35.69295	-119.232	338	District	Supply Well	Private	Interim	Yes	WL and WQ	--	--	--	--	--	--	Main Production
SSJMUD Well 53	--	26S-26E-32	35.63068	-119.191	430	District	Supply Well	Private	Interim	Yes	WL and WQ	--	--	--	--	--	--	Main Production
SSJMUD Well 59	--	26S-26E-10	35.682	-119.152	512	District	Supply Well	Private	Interim	Yes	WL and WQ	--	--	--	--	--	--	Main Production
SSJMUD Well 62	--	25S-26E-26	35.71837	-119.145	472	District	Supply Well	Private	Interim	Yes	WL and WQ	--	--	--	--	--	--	Main Production

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The monitoring network for each respective aquifer zone was considered where active groundwater production occurs and where aquifer zones are present. For example, as described in the basin setting of this chapter, no pumping for beneficial uses occurs in the upper zone and is therefore classified as de minimis; consequently, the monitoring network does not include any monitoring of this zone (refer to the basin setting of this chapter for details on extent of the Corcoran clay). Therefore, congruous to the pumping occurring in the aquifer zones, all wells included in this monitoring network will monitor the lower zone.

4.3.1.2 Monitoring Frequency

The monitoring network will be capable of collecting sufficient data to demonstrate seasonal, short-term (1 to 5 years) and long-term (5 to 10 years) trends in groundwater and related surface conditions and yield representative information about groundwater conditions as necessary to evaluate plan implementation. In general, water level monitoring will be seasonal to evaluate groundwater elevations during spring time (seasonal high prior to summer irrigation demands) and fall (seasonal low after the summer irrigation demands).

4.3.1.3 Spatial Density

In general, the monitoring network well density follows the recommendation of 4 to 10 wells per 100 square miles (DWR, 2016), in active groundwater production zones. Table 4-4 below lists the well density for the network with interim wells and with future installation of monitoring wells. The well density is listed in relation to the three management areas.

Table 4-4. Monitoring Network Well Density per Management Area (approximate)

Management Area	Area (Sq. miles)	Corresponding minimum number of wells recommended in DWR BMP	Monitoring wells included as part of the network
SSJMUD	101	4	7

4.3.1.4 Data Gaps

While the monitoring network provides a good spatial coverage of the entire District, the interim wells identified lack well construction details and require confirmation of perforation intervals. As referenced in § 352.4 of the regulations, *"If an Agency relies on wells that lack casing perforations, borehole depth, or total well depth information to*

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monitor groundwater conditions as part of a Plan, the Agency shall describe a schedule for acquiring monitoring wells with the necessary information, or demonstrate to the Department that such information is not necessary to understand and manage groundwater in the basin."

All supply wells included in the monitoring network lack well construction details and require confirmation of perforation intervals and annular seal details. The extents of the Corcoran clay (shown in the Basin Setting) was primarily used to determine where upper and lower aquifers exist and does not indicate with absolute certainty that a shallower aquifer does not exist in the central and east portions of SSJMUD. The description of steps to fill this data gap has been identified in section 4.5 below.

4.3.2 Degraded Water Quality

The District proposes to utilize the same network of wells that were identified as part of the groundwater level monitoring network.

4.3.2.1 Rationale

Since the District's monitoring network comprises wells for both water quality and water level monitoring, the same rationale elaborated in Section 4.3.1.1 applies here.

4.3.2.2 Spatial Density

As described in section 4.3.1.3 and evidenced in Table 4-4, the monitoring network well density follows DWR's BMP recommendation of 4 to 10 wells per 100 square miles, in active groundwater production zones.

4.3.2.3 Data Gaps

The data gaps identified in section 4.3.4.4 are also applicable here.

4.3.3 Seawater Intrusion

Seawater intrusion is not applicable to this management area plan.

4.3.4 Land Subsidence

The network of land subsidence monitoring is included on Table 4-5. The monitoring stations include those from the existing regional subsidence network, as discussed in the existing monitoring of the basin setting and umbrella section of the KGA GSP.

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Table 4-5. Land Subsidence Monitoring

Type	Stations	Well Pair	Frequency	Source
Continuous GPS Stations	P564 Wasco P565 Delano Airport	26S-24E-36P 25S-25E-23	Daily to Monthly	UNAVCO PBS www.unavco.org Access data from: Instrumentation > Network Monitoring > Plate Boundary Observatory (PBO).
InSAR / UAVSAR	Remote Satellite Imagery		Monthly to Annually	Areal extent varies depending on dataset. Not always extensive across the Subbasin. Post-processing is required to use the data.
Survey Monuments	MP-116.94, MP-120, MP-124, MP-127		Event-specific	USBR, Friant-Kern Canal. (Coverage: SSJMUD and Tulare).

4.3.4.1 Rationale

Discrete monitoring stations are paired with water level monitoring points to record changes in land subsidence over time with respect to groundwater. The monitoring network is designed to take advantage of available data from CGPS and remote sensing sources. Most importantly, as the network consistently collects data for several years, an understanding of the long-term effects of groundwater extraction on local land subsidence will improve.

4.3.4.2 Land Subsidence Spatial Density

The District currently utilizes for monitoring, one CGPS station near Delano (P565), and one CGPS station located ~4 miles southwest of the District near Wasco (P564).

In addition, InSAR data has been used to evaluate land subsidence in between these monitoring points. However, the InSAR data historically has had large gaps over the District during certain time periods (example seen in the Basin Setting Figure 2-22).

In addition to the CGPS and InSAR data, benchmark locations along the Friant-Kern Canal exist in the northern, central and southeastern portions of the District where the Friant-Kern Canal and Poso creek intersect.

Future coordination with other Subbasin stakeholders will be critical to provide input on regional basin-wide remote sensing surveys to continue to provide coverage between subsidence monitoring points.

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4.3.4.3 Data Gaps

The western and eastern portions of the District do not have discrete point stations for monitoring subsidence, rather InSAR regional data has been used. Based on InSAR data, these areas appear to experience greater subsidence relative to adjacent portions of the District where subsidence point stations are located. If deemed appropriate, in the future, installation of discrete point stations such as National Geodetic Survey (NGS) type concrete survey monuments or CGPS stations, may be useful control points to compare with InSAR data in the District.

4.3.5 Depletion of Interconnected Surface Water

Depletion of interconnected surface water is not applicable to the basin.

4.4 Monitoring Protocols and Reporting Standards

The District monitoring protocols for collection of groundwater levels and water quality samples will generally follow the Groundwater Monitoring Protocols, Standards, and Sites BMP produced by DWR (DWR, 2016a). The protocols and standards for monitoring and reporting requirements are provided below. For detailed description of monitoring protocols and reporting standards, please refer to the KGA GSP.

4.5 Monitoring Network Improvement Plan

A monitoring network improvement plan with an assessment of improvements is required every five years. This improvement plan contains areas of data gaps in the initial monitoring network, in which additional data or monitoring sites are needed.

The network assessment conforms with § 354.38 and is required for every five-year update. It includes:

- An evaluation of uncertainty of the data and whether there are data gaps including in the number of monitoring sites, the frequency of monitoring, and whether the monitoring stations comply with the minimum standards of a monitoring network.
- A description of the location and reason for data gaps in the network, and any local issues and circumstances that limit or prevent monitoring.
- A description of how data gaps will be filled before the next five-year assessment, including the location and purpose of newly added or installed monitoring sites.
- Plans for network revisions to adjust the monitoring frequency and density of monitoring sites to better assess the effectiveness of management actions, if there are:
    - Minimum threshold exceedances,

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- Highly variable spatial or temporal conditions,
- Adverse impacts to beneficial uses and users of groundwater, or
- The potential to adversely affect the ability of an adjacent basin to implement its Plan or impede achievement of sustainability goals in an adjacent basin.

4.5.1 Assessment of Network Improvements

An assessment of the monitoring network is provided below to discuss future improvements.

4.5.1.1 Water Level, Groundwater Storage, and Water Quality Monitoring Network Assessment Plan

As indicated previously in the data gaps section, construction details of the interim wells need to be determined to improve on the monitoring network. This will be mitigated by conducting downhole well surveys and desktop surveys to fill in the well construction details gap.

Within the next 5 years, the plan to fill data gaps in the water level monitoring network include:

- Coordinate with cities for access to use wells in monitoring network.
- Assess if interim wells are compliant with monitoring well standards.
- Assess the feasibility of a future permanent well installation to fill the data gaps in the management area coverage.
- Rank or prioritize future installation sites and reject any redundant monitoring sites if any.
- Assess the need to increase coverage of the future monitoring network, further than currently recommended.
- Finalize future monitoring network and develop a schedule for station installation.
- Continue evaluating the monitoring network for data gaps.

4.5.1.2 Land Subsidence Network Assessment Plan

As described in the data gaps section of the land subsidence network, the western portion of the District does not currently have discrete point stations for monitoring subsidence. Rather, InSAR regional data has been used to provide coverage between discrete monitoring stations. Additional monitoring of subsidence in the west is needed to better evaluate land subsidence as a sustainability indicator.

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Based on InSAR data, the data near the CGPS point appears relatively similar for an analysis of one time period and is missing data for another, seen in Basin Setting. If deemed appropriate, in the future, installation of discrete point stations such as NGS-type concrete survey monuments or CGPS stations, may be useful control points to compare with InSAR data in the west and east parts of the District.

Alternatively, as described in the Basin Setting, various groups have or are comparing InSAR data with monitoring point stations (CGPS and extensometer) to evaluate the effectiveness of using InSAR in lieu of monitoring stations. A better understanding and continued monitoring of subsidence by remote sensing such as InSAR and point station data are needed to further this evaluation.

It is anticipated that the Friant-Kern Canal benchmarks may also be useable as interim monitoring stations with coordination between the District, Friant Water Authority, and USBR.

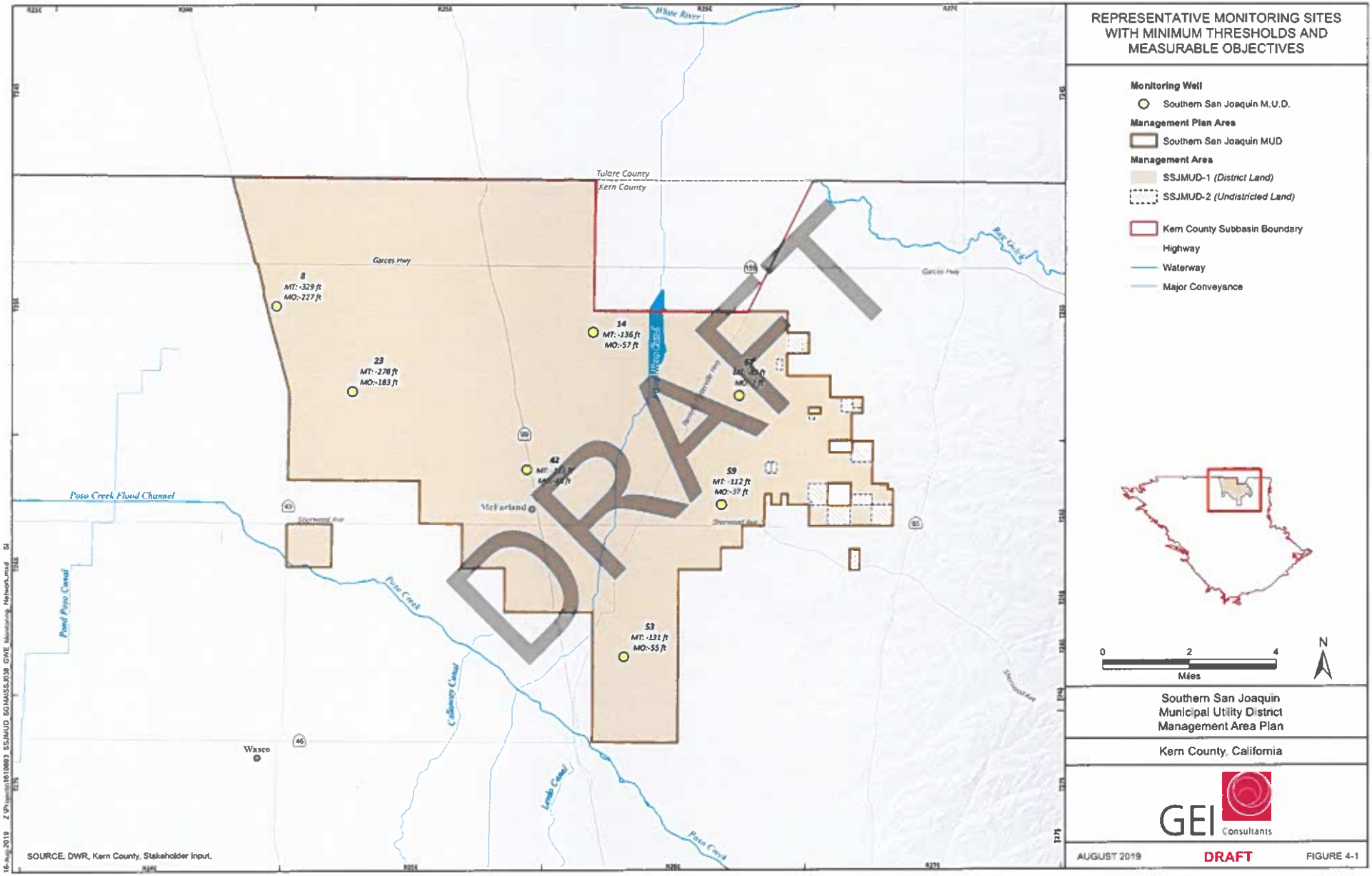
As described in the Basin Setting, reduction in storage as potentially an undesirable result, has been documented from land subsidence in the San Joaquin Valley. In order to evaluate potential changes in storage, water level data with subsidence data from stations such as CGPS are needed. This evaluation requires reliable co-located groundwater monitoring stations within the vicinity of the subsidence stations.

Plan to fill Data Gaps

Within the next 5 years, the plan to fill data gaps in the subsidence monitoring network include:

- Coordinate with Friant Water Authority and USBR on the use of the Friant-Kern Canal benchmarks as interim monitoring sites.
- Evaluate future benchmark monitoring sites co-located with the future well monitoring network, especially in the western portion of the District, where monitoring stations are not currently present.
- Assess the adequacy of nearby interim wells and future monitoring wells as co-located water level monitoring stations with CGPS, to better evaluate water levels with subsidence monitoring data. Collect data and evaluate the need for installing a well closer to CGPS station.
- Continue to collect data to evaluate InSAR data in relation to discrete point stations, to assess the feasibility of using InSAR or other remote sensing data as a supplement for data gaps in the monitoring station network.

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REPRESENTATIVE MONITORING SITES WITH MINIMUM THRESHOLDS AND MEASURABLE OBJECTIVES
Monitoring Well
Southern San Joaquin M.U.D.
Management Plan Area
Southern San Joaquin MUD
Management Area
SSJMUD-1 (District Land)
SSJMUD-2 (Undistricted Land)
Kern County Subbasin Boundary
Highway
Waterway
Major Conveyance
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Tulare County
Kern County
White River
Garces Hwy
Poso Creek Flood Channel
Poso Creek
Pond Poso Canal
Calloway Canal
Lerdo Canal
Sherwood Ave
McFarland
Wasco
8
MT: -329 ft
MO:-227 ft
14
MT: -136 ft
MO:-57 ft
23
MT: -278 ft
MO:-183 ft
42
59
MT: -112 ft
MO:-39 ft
53
MT: -131 ft
MO:-55 ft
0
2
4
Miles
N
Southern San Joaquin Municipal Utility District Management Area Plan
Kern County, California
GEI Consultants
AUGUST 2019
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FIGURE 4-1
SOURCE: DWR, Kern County, Stakeholder Input.

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5. Projects, Management Actions, and Adaptive Management

5.1 Sustainability Goal

The sustainability goal of the District is to balance the average annual inflow and outflow of water in the district so that a negative change in groundwater storage does not occur; thus, preventing the lowering of groundwater levels beyond 2040. This section describes projects and management actions to meet this sustainability goal for SSJMUD in a manner that can be maintained over the planning and implementation horizon. The projects and management actions presented here represent the best available engineering and analysis completed to-date. This list will be updated throughout the planning and implementation period to reflect analyses and new emerging opportunities.

5.2 Projects and Management Actions Processes

The following sections describe the processes required for projects and management actions to be implemented, the sustainability indicator(s) addressed and an overview of the expected benefits. A summary list of the projects and management actions considered by SSJMUD are provided in Table 5-1 at the end of this Section.

5.2.1 Goals and Objectives

Per Section 354.44 of the GSP emergency regulations, plans are to include projects and management actions to address any existing or potential undesirable result for the identified relevant sustainability indicators. SSJMUD plans to implement projects and management actions that will meet the measurable objectives of the following sustainability indicators: (1) chronic lowering of groundwater levels, (2) reduction of groundwater storage, (3) degraded water quality, and (4) land subsidence.

Implementation of each project and management action will address the chronic lowering of groundwater levels. Since groundwater levels are used as proxy for identifying undesirable results in groundwater storage, groundwater quality, and land subsidence, each project and management action may also address the other three sustainability indicators. Tables 5-1 provides an indication of the sustainability indicators that may be addressed by the proposed management action.

5.2.2 Circumstances for Implementation

Given the circumstances of conditions described in the basin setting of this management area plan, SSJMUD has already begun implementation of certain projects and

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management actions. Projects and management actions will be implemented as seen fit by the District and certain management actions will be implemented as early as 2020 following the adoption of this management area plan. Other management actions will be implemented following the development of the appropriate plans to be approved by the SSJMUD Board of Directors.

When feasible, the District will construct projects to bring in supplemental water to the Subbasin and implement management actions to reduce pumping of groundwater. Table 5-1 provides a timeline for each management action's implementation and the circumstances for which each will be implemented.

5.2.3 Public Notice

The public notice and outreach processes for the District consist of notified public board meetings, discussion with landowners within the District's boundaries, and the CEQA process each project and management action may undergo before implementation. SSJMUD provides public noticing by posting all board meeting notices, agendas, and minutes on its website (see Section 1.2) according to the Brown Act.

5.2.4 Permitting and Regulatory Processes

Permitting and regulatory requirements vary for the different projects and management actions SSJMUD plans to implement. While these requirements are similar for the District's project and management actions, specific requirements will depend on the type of project, which could be recharge and infrastructure projects as well as administrative actions that incentivize reduced groundwater pumping. The following is a list of the types of permitting at the federal, state, and county level that could apply, but not necessarily, to all management actions:

- Federal
    - If federal grants are used, National Environmental Policy Act (NEPA) documentation is required
    - National Pollution Discharge Elimination System (NPDES) stormwater program permit
- State
    - California Environmental Quality Act (CEQA) documentation is required for all project and management actions.
        - These documents include one or more of the following: Initial Study, Categorical Exemption, Negative Declaration, Mitigated Negative Declaration, and Environmental Impact Report;
- Regional

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- San Joaquin Valley Air Pollution Control District (SJVAPCD) permit and regulations

- Local/County
  - Encroachment permits;
  - Kern County grading permit;
  - Kern County well permit;
  - Kern County supplemental well permit.

5.2.5 Implementation and Timetable Status

The current status of each project and management action is included in Table 5-1. Since most projects and management actions are in the conceptual phase of development, timeline for implementation is estimated and subject to change depending on project need and supplemental water availability. SSJMUD will begin to implement management actions to reduce groundwater extractions as soon as 2020 and will continue to implement based on their estimated timeline.

The status of each project and management action is also provided in Table 5-1. Each project and management action are designated as follows:

Conceptual: The project or management action is identified but has not undergone significant planning, engineer or feasibility analyses.

Not yet started: This project or management action as undergone some initial evaluations but has advanced to an implementation phase. The management action will likely require additional feasibility analyses.

Initiated: The project or management action has undergone initial planning and feasibility assessments and being advanced to implementation.

Ongoing: The project or management action is part of an ongoing effort by the District and will continue to be implemented to meet the sustainability goals of the District.

5.2.6 Expected Benefits

Table 5-1 provide the estimated benefits for each project and management action the Districts plan to implement. As previously stated, most of the proposed actions are in their conceptual phase of development; therefore, a range has been provided for the estimated benefits each action is expected to yield.

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5.2.7 Source and Reliability of Water Outside of SSJMUD

SSJMUD will bring in supplemental water from outside the District to support projects and management actions. While not all projects and management actions require source water from outside the district, there are several that do. As discussed in Section 2 of this management area plan, SSJMUD's primary source of water is supplied by the CVP which will help support existing and future projects and management actions in the District. In addition, the District will be seeking other sources of water and will continue to participate in various surface water transfer and exchange programs as well as explore purchasing markets in the Central Valley to support their effort to achieve groundwater sustainability by 2040.

5.2.8 Legal Authority Required

SSJMUD is a member agency under the KGA GSA. Under the JPA with KGA, each district maintains its authority over in-district services and projects. Thus, SSJMUD has the legal authority to implement projects and management actions in order to achieve groundwater sustainability.

5.2.9 Estimated Costs and Funding

As previously stated, most of the projects and management actions are in their conceptual phase of development; therefore, costs may not be available. Where costs have been estimated, they are subject to change as the project or management action undergoes more detailed analysis.

With regard to funding, the District has been successful in securing grants through various government agencies for past projects. The District will continue these efforts and apply for various funding sources at all levels of government in order to implement project and management actions.

5.3 SSJMUD Projects Planned Regardless of Conditions

Given the circumstances of conditions described in the basin setting, the District may implement projects as early as 2020. SSJMUD has identified the following projects to accomplish groundwater sustainability:

- In-District Spreading and Recovery Facility
- SSJMUD and Semitropic Schuster Intertie
- SSJMUD and CWD Intertie Pipeline
- SSJMUD and North Kern WSD 9-28 Intertie Pipeline
- Southeast Delano Spreading Grounds

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- City of Delano Spreading Grounds
- Pond Road Spreading Grounds
- In District Spreading Grounds
- Conversion of Dairy to Recharge Facility

5.3.1 City of Delano Spreading Grounds

SSJMUD proposes identifying and evaluating potential land suitable for developing recharge basins, with possible purchase with private and/or public partnering agencies within the City of Delano. The purpose of this project is to capture surface water deliveries that are delivered through the FKC. Excess available surface supply, or those flows beyond the quantity of water that satisfies immediate water demand within a service area, typically occurs in wet years when precipitation in contributing watersheds is large enough to induce surface water available above Friant Class 1 contract supplies. Potential flows to capture consists of water which is currently discharged during wet years, during flood conditions and for water that needs to be delivered due to changes in timing to meet environmental water management goals for the San Joaquin River Restoration.

Any purchased land holdings under this project would be converted to dedicated spreading ponds, used to hold recharge delivered water into the groundwater basin. To that extent, conveyance from the Friant-Kern Canal to any spreading ponds will be constructed using pipe and/or canal systems, as well as conveyance pumping stations.

5.3.2 In-District Spreading and Recovery Facility

This project will include construction of 80-acres of spreading ponds and the installation of two recovery wells within district boundaries. The proposed recharge ponds have an anticipated annual capacity of 3,240 AFY. SSJMUD will realize an estimated recoverable volume of 2,800 AFY from this project. Prior to this project, the district has not had any in-district direct recharge facilities. Implementation of this project will allow SSJMUD the opportunity to capitalize on wet period storage of CVP supplies and allow them to bypass less favorable out-of-district banking agreements to store water that would increase the District's and the Subbasins water reliability and drought resiliency.

5.3.3 SSJMUD and Semitropic Schuster Intertie

The proposed project is to construct an intertie in coordination with SWSD. This pipeline will allow for SSJMUD to bank or return water to SWSD previously delivered to SWSD's groundwater banking program. SSJMUD would be able to deliver wet period water from the FKC for groundwater banking to SWSD and able to return water to SSJMUD for irrigation purposes during dry years.

This Project removes the need to involve a third-party in an agreement with SWSD for banking since it establishes a direct connection to return water to SSJMUD from SWSD, thereby increasing operational flexibility and reliability to deliver previously stored water from groundwater storage at times of drought. If federal funding is secured for this project, NEPA will also need to be considered as part of the permitting and regulatory process.

5.3.4 SSJMUD and CWD Intertie Pipeline

SSJMUD and CWD propose to construct a bidirectional intertie connecting their respective water conveyance systems. This pipeline is a regional opportunity to improve flexibility, reliability, and conjunctive use of water supplies.

A primary benefit is the improved access each District will have to each other's contract supply. The pipeline will allow SSJMUD, a CVP water contractor, and CWD, a Kern River and SWP water contractor, to more easily exchange contract surface supplies to meet their immediate agricultural demand. With the increasing uncertainty of surface supplies, the ability to efficiently exchange and obtain supplies from different sources has also become increasingly important. Benefits provided by the intertie are further shared with nearby districts, as other water management strategies occur such as multi-district water transfers and groundwater banking. If federal funding is secured for this project, NEPA will also need to be considered as part of the regulatory and permitting process.

5.3.5 SSJMUD and North Kern WSD 9-28 Intertie Pipeline

Project proposal includes the construction of the 9-28 Intertie pipeline with NKWSD. This pipeline will allow for the return of CVP Class I, Class II, and surplus floodwater that was previously delivered to the District's groundwater banking partner (NKWSD) from the FKC for groundwater banking or irrigation purposes during wet years. The pipeline is the conveyance mechanism for return of previously stored water to the District during dry years.

This project removes the need to involve a third-party in an agreement with North Kern for banking since it established a direct connection to return water to SSJMUD from NKWSD, thereby increasing operational flexibility and reliability to deliver previously stored water from groundwater storage during times of drought. If federal funding is secured for this project, NEPA will also need to be considered as part of the regulatory and permitting process.

5.3.6 Southeast Delano Spreading Grounds

SSJMUD proposes the purchasing of land holdings, with possible partnering agencies (to be identified later), in and around the eastern most portion of the District. The District is currently exploring the potential for capturing excess surface water deliveries in the FKC.

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Excess surface supply, or those flows beyond the quantity of water that satisfies immediate water demand, typically occur in wet years where precipitation in applicable watersheds is large enough to induce surface water available above Class I contract supplies. Potential captured flows consist of water which is currently discharged during wet year and flood conditions.

Any purchased land holdings under this project would be converted to dedicated spreading ponds, used to hold recharge delivered water into the groundwater basin. To that extent, conveyance from the FKC to any spreading ponds will be constructed using pipe and/or canal systems, as well as conveyance pumping stations.

Implementation of this project has the potential for contributing water supplies to SSJMUD, the City of Delano (which qualifies as a DAC), and Poso Creek IRWM water users. Specifically, SSJMUD will use a portion of these captured flows to offset their groundwater use in dry years by moving the surplus water to this banking facility using either the FKC or other existing infrastructure. Wet year water supplies captured in the spreading grounds and storage locations will be utilized by SSJMUD, City of Delano, and potentially other Poso Creek stakeholders, during years where other water supplies are limited. Depending upon the scale of the project, the anticipated benefits range from 247 AFY for a 30-acre site to 2,640 AFY for a 320-acre site.

5.3.7 Pond Road Spreading Grounds

SSJMUD proposes identifying and evaluating potential land holdings to be purchased, with possible private and/or public partnering agencies. The District is currently exploring the potential for capturing excess surface water deliveries in the Friant-Kern Canal. Excess surface supply, or those flows beyond the quantity of water that satisfies immediate water demand, typically occur in wet years where precipitation in applicable watersheds is large enough to induce surface water available above Class 1 contract supplies. Potential captured flows consist of water which is currently discharged during wet year and flood conditions.

Any purchased land holdings under this project would be converted to dedicated spreading ponds, used to hold recharge delivered water into the groundwater basin. To that extent, conveyance from the FKC to any spreading ponds will be constructed using pipe and/or canal systems, as well as conveyance pumping stations.

5.3.8 In-District Spreading Grounds

SSJMUD proposes identifying and evaluating potential land holdings to be purchased, with possible private and/or public partnering agencies. The District is currently exploring the potential for capturing excess surface water deliveries in the FKC. Excess surface supply, or those flows beyond the quantity of water that satisfies immediate water

demand, typically occur in wet years where precipitation in applicable watersheds is large enough to induce surface water available above Class 1 contract supplies. Potential captured flows consist of water which is currently discharged during wet year and flood conditions.

Any purchased land holdings under this project would be converted to dedicated spreading ponds, used to hold recharge delivered water into the groundwater basin. To that extent, conveyance from the FKC to any spreading ponds will be constructed using pipe and/or canal systems, as well as conveyance pumping stations.

5.3.9 *Conversion of Dairy to Recharge Facility*

SSJMUD proposes identifying and evaluating potential purchase of a dairy, with possible private and/or public partnering agencies. The District is currently exploring the potential for capturing excess surface water deliveries in the FKC. Excess surface supply, or those flows beyond the quantity of water that satisfies immediate water demand, typically occur in wet years where precipitation in applicable watersheds is large enough to induce surface water available above Class 1 contract supplies. Potential captured flows consist of water which is currently discharged during wet year and flood conditions.

Any purchased land holdings under this project would be converted to dedicated spreading ponds, used to hold recharge delivered water into the groundwater basin. To that extent, conveyance from the FKC to any spreading ponds will be constructed using pipe and/or canal systems, as well as conveyance pumping stations. Before eventual conversion to spreading grounds, the dairy facility will be replaced by alfalfa fields, with the view of removing nitrates from the soil and improving infiltration with the alfalfa root system.

In addition to the development of the a CEQA document, the use of former dairy waste discharge ponds may require review and approval by the Central Valley RWQCB to ensure that degradation of groundwater quality in the proposed project area does not occur. A soils and groundwater sampling plan, report of findings and analysis, and a remediation plan and report may be required prior to the use of the former dairy site for groundwater recharge.

5.4 Management Actions Planned for Groundwater Sustainability

Per Section 354.4 of the GSP emergency regulations, the following sections details the managements actions SSJMUD will take to achieve groundwater sustainability by 2040. The district has identified the following management actions:

- "Surface Water First" Incentive Program
- On-Farm Efficiency/Deficit Irrigation Practices Incentive Program

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- On-Farm Recharge Activities Incentive Program
- Conversion of Agricultural Land to Urban Use
- Urban Water Conservation Program
- In-District Allocation Structure
- Voluntary Land Fallowing
- Pumping Restrictions

5.4.1 "Surface Water First" Incentive Program

SSJMUD has access to imported surface water to supply its jurisdictional area. However, there are instances in which growers have historically opted to pump groundwater, rather than receiving deliveries of surface water from the district which services their properties. When this occurs, the district must either use that water for groundwater recharge or enter into exchanges with other districts (either in this Subbasin or in another basin).

While this may be an economic decision for the grower, it has the potential to cause local impacts to groundwater in the district over the long-term. To prevent local impacts to groundwater due to the use of groundwater over available surface water, the districts may explore a fee structure in which growers with access to surface water may be assessed for the use of groundwater when surface water is available for use. The fees collected for such activities would be applied to the expansion of existing recharge projects or the development of new recharge projects to accommodate the additional surface water that would be brought into the district to replace the additional groundwater pumped.

The adoption of an incentive program would require approval of a district's Board of Directors. No additional permitting would be required for this management action because it does not change existing uses of land or infrastructure within the district.

5.4.2 On-Farm Efficiency/Deficit Irrigation Practices Incentive Program

As an agricultural water service provider, SSJMUD complies with all provisions of SB 7 (amending Division 6, Part 2.55 of the Water Code) passed into law in November 2009 regarding agricultural water conservation and management. Efficient management practices in the law, related to SGMA objectives, include volumetric water pricing, incentives for conjunctive use and increased groundwater recharge, and development of an overall water budget. AB 1668 and SB 606 passed in 2018 did not materially add to these objectives, save for those districts serving between 10,000 and 25,000 acres who must now prepare water management plans under the newer laws.

While these new laws do not require water use objectives or savings thresholds, they do encourage more efficient use of water by the agricultural sector and its suppliers.

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SSJMUD will encourage improvements to individual farming operations that address water use efficiency and/or groundwater protection through incentive programs.

5.4.2.1 Permitting and Regulatory Process

Regulatory compliance resides with those provisions of SB7, AB 1668, and SB 606 now codified into state law. The adoption of an incentive program would require approval of a district's Board of Directors. No additional permitting would be required for this management action because it does not change existing uses of land or infrastructure within the district.

5.4.3 Land Conversion from Agricultural Use to Urban Use

As described in the General Plans for the cities of Delano and McFarland, anticipated population growth is expected to lead to changes in land use within the limits of each city and in the Sphere of Influence for each city. The conversion of land use from agricultural to urban use generally leads to an overall reduction in groundwater use due to the decreased demand, in terms of volume per unit area. The City of Delano and the surrounding areas have a projected increase of 2,100 acres in urban use; the City of McFarland and its surrounding areas have a projected increase of 1,100 acres.

While these areas are described as part of each city's Sphere of Influence in their respective General Plans, the lands which are anticipated to convert from irrigated agricultural use to urban use are still zoned for Agricultural use in either the city or county zoning. In order to develop these lands for urban use, the land would have to be re-zoned for the proposed, non-agricultural use.

The conversion of land use from agricultural to urban is an ongoing process, the pace of which is determined by external factors such as the demand for land based on each city's growth and need for additional housing and/or property to support business, industrial, or municipal use. The projected growth for each city is based upon the current General Plans and may be subject to change when the cities update their respective plans.

5.4.4 Urban Water Conservation Program

As referenced in the Umbrella Basin Setting (Chapter 2), urban water usage in the future is expected to comply with the conservation mandates contained in SB 606 and AB 1668, both bills signed into law in May 2018. Based on that legislation, indoor residential use is to be capped at 55 gpcd in 2019 and ramp down to 50 gpcd by 2030, and outdoor residential use is to be capped in the future based on local climate and size of landscaped areas. Standards for outdoor usage are to be defined in a SWRCB rule-making process to be completed by June 2022.

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Urban water conservation compliance currently derives from SB 7X-7 passed in 2009 (Water Conservation Act of 2009), and the UWMP for Delano, along with associated ordinances, reflect that Act's mandates of a 20% reduction in urban per capita water usage by 2020. While McFarland is not currently required to prepare a UWMP, projected population growth and expansion of its service area will require the preparation and implementation of an SB 7X-7 compliant plan. Future achievements in urban conservation will be as derived from the passage of AB 1668 and SB 606 in 2018. Future amendments to UWMPs and modified ordinances of both cities will eventually embody these recent laws.

5.4.5 In-District Allocation Structure

At the time of this draft of the District's management area plan, SSJMUD does not have an established allocation structure and fee schedule for groundwater extraction. As SGMA is implemented throughout the Subbasin, the districts are required to manage to the sustainable management criteria established in Section 3 of this management area plan. One of the ways to manage for the sustainable management criteria (SMC) is to allocate the Sustainable Yield for their respective districts to the landowners within their districts. The allocation structure would allow for the transfer of groundwater pumping credits within each district's jurisdiction, provided that it does not lead to localized impacts to at the representative monitoring sites defined in Sections 4 of this management area plan.

While the specifics of such an allocation structure may vary between the districts, a baseline groundwater extraction volume would be allocated to each parcel based on its size and the Sustainable Yield for the district. If a landowner were to extract more water than the baseline volume for that parcel or for the aggregate of all of their parcels within the district, they would be required to pay an extraction fee which would be applied toward projects and programs implemented by the district to reach and/or maintain sustainability.

5.4.6 Voluntary Land Fallowing

In the event of a drought, the district may not be able to entirely meet in-district demand by increasing the volume of imported water. The combination of decreased availability in surface water to supply to the district and decreased recharge from other sources in the Subbasin has the potential to lead to violations of sustainable management criteria at the representative monitoring sites, in the absence of decreased demand. To facilitate the district's ability to maintain sustainability at its monitoring sites, the district will develop and implement a voluntary land fallowing program.

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The district will be required to develop the guidelines for eligibility and the terms of the program, prior to submitting them to the board for adoption. This will also include the determination of funding and for the program and in-district outreach.

5.4.7 Pumping Restrictions

In the event that the districts or the entire Subbasin are nearing a condition where they are at risk of triggering an undesirable result, even with the implementation of the projects and management actions described in this Plan, it may be necessary for the district to limit groundwater pumping. The volume of groundwater extraction permitted under this Management Action would be determined by the district based on the Sustainable Yield for the district and the SMC at the Representative Monitoring Sites.

5.5 Summary

A summary list of the projects and management actions considered by SSJMUD is provided in Table 5-1.

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Table 5-1
Proposed list of Projects and Management Actions for Southern San Joaquin MUD

PMA Number	PMA Name	Summary Description	Relevant Sustainability Indicators Affected			Circumstance for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion	Timetable for Accrual of Expected Benefits	Expected Benefits				Source(s) of Water, if Applicable	Legal Authority Required	Estimated Costs		
													Primary		Secondary						
			Groundwater Levels and Storage	Groundwater Quality	Land Subsidence								Water Supply Augmentation	Water Demand Reduction	Water Quality Improvement	Water Management Flexibility / Efficiency			One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
1	City of Delano Spreading Grounds	Improvements to existing 16-acre stormwater retention basin for use as a spreading basin. Improvement to adjacent 32-acre site for expansion of spreading grounds	+		+	Pilot phase operation underway. Permanent implementation upon completion of CEQA	SSJMUD Meetings & Website	NPDES, Dust Control Plan, CEQA	Initiated	2020	2021	Through 2040	500 AFY		TBD	TBD	CVP Contract Water and Surplus Water	District / SGMA authorities	$ 450,000	TBD	Grant/ District/ City of Delano
2	In-District Spreading and Recovery Facility	80-acre spreading ponds and 2 recovery wells	+		+	Implementation upon Acquisition of Land and completion of CEQA	SSJMUD Meetings & Website	NPDES, Dust Control Plan, CEQA	Initiated	2020	2022	Through 2040	2,800 AFY				CVP Contract Water	District / SGMA authorities	$ 1,864,491	TBD	Grant/ District
3	Schuster Interte	Construction of pipeline between Semitropic and SSJMUD to provide operational flexibility and allow SSJMUD to import more supplies to the Subbasin.	+		+	Upon completion of development	SSJMUD Meetings & Website	CEQA, County LUP, Road Encroachments, NPDES, Dust Control Plan	Conceptual	2020	2022	Through 2040	1,811 AFY		TBD	TBD	CVP Contract Water	District / SGMA authorities	$ 2,500,000	TBD	Grant/ District
4	SSJMUD & Cawelo WD Interte	Construction of pipeline between Cawelo and SSJMUD to provide operational flexibility and allow SSJMUD to import more supplies to the Subbasin.	+		+	Upon completion of development	SSJMUD Meetings & Website	CEQA, County LUP, Road Encroachments	Conceptual	2022	2025	Through 2040	500 AFY		TBD	TBD	CVP Contract Water	District / SGMA authorities	$ 5,000,000	None	Grant/ District
5	SSJMUD & NKWSD 9-26 Interte	Construction of pipeline to connect SSJMUD's existing system to NKWSD to provide operational flexibility to absorb delivered surface water	+		+	Upon completion of development	SSJMUD Meetings & Website	CEQA, County LUP, Road Encroachments	Conceptual	2025	2025	Through 2040	4,294 AFY		TBD	TBD	CVP Contract Water and Surplus Water	District / SGMA authorities	$ 2,000,000	TBD	Grant/ District
6	Southeast Delano Spreading Grounds	Conversion of land to permanent spreading grounds, up to 320 acres, to facilitate groundwater recharge in proximity to the City of Delano to the benefit of both the district and the city	+		+	Implementation upon Acquisition of Land and completion of CEQA	SSJMUD Meetings & Website	NPDES, Dust Control Plan, CEQA	Initiated	2020	2022	Through 2040	2,640 AFY		TBD	TBD	CVP Contract Water and Surplus Water	District / SGMA authorities	$ 8,000,000	TBD	Grant/ District/ City of Delano
7	Pond Road Spreading Grounds	Conversion of land to permanent spreading grounds, up to 320 acres in proximity to the FKC, to capture and utilize excess surface water deliveries.	+		+	Implementation upon Acquisition of Land and completion of CEQA	SSJMUD Meetings & Website	NPDES, Dust Control Plan, CEQA	Conceptual	2020	2025	Through 2040	1,848 AFY		TBD	TBD	CVP Contract Water and Surplus Water	District / SGMA authorities	$ 6,000,000	TBD	Grant/ District
8	In-District Spreading Grounds	Conversion of land to permanent spreading grounds, up to 800 acres, to facilitate groundwater recharge. This project would consist of multiple locations throughout SSJMUD identified as potential recharge sites.	+		+	Implementation upon Acquisition of Land and completion of CEQA	SSJMUD Meetings & Website	NPDES, Dust Control Plan, CEQA	Conceptual	2020	2030	Through 2040	9,600 AFY		TBD	TBD	CVP Contract Water and Surplus Water	District / SGMA authorities	$ 44,000,000	TBD	Grant/ District
9	Conversion of Dairy to Recharge Facility	Conversion of land previously used for dairy operations into permanent recharge facilities.	+		+	Implementation upon Completion of Feasibility Study, Acquisition of Land and completion of CEQA	SSJMUD Meetings & Website	NPDES, Dust Control Plan, CEQA	Conceptual	2020	2030	Through 2040	TBD		TBD	TBD	CVP Contract Water and Surplus Water	District / SGMA authorities	TBD	TBD	Grant/ District
10	"Surface Water First" Incentive Program	Implementation of fees for groundwater use when surface water is available.	+		+	Upon adoption of this plan and development of incentive program	SSJMUD Meetings & Website	Board Approval	Conceptual	2020	2020	Through 2040	None	1,800 AFY	TBD	TBD	Existing surface water supply	District / SGMA authorities	None	None	None
11	On-Farm Efficiency/Deficit Irrigation Practices Incentive Program	Improvements to individual farming operations that address water use efficiency and/or groundwater protection through incentive programs.	+		+	Upon adoption of this plan	SSJMUD Meetings & Website	SB 7, AB 1668, and SB 606	Conceptual	2020	2025	Through 2040	None	TBD	None	None	No additional supply required	District / SGMA authorities	TBD	TBD	District
12	Conversion of Agricultural Land to Urban Use	Conversion of agricultural land to urban use within the limits of each city to reduce groundwater use due to the decreased demand.	+		+	Ongoing	SSJMUD Meetings & Website	County zone change, CEQA	Ongoing	Ongoing	TBD	Through 2030	None	1750 AFY	TBD	TBD	No additional supply required	District / SGMA authorities	TBD	TBD	Landowners and Cities

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6. References

Bartow J. Alan and Gardner M. Pittman, 1983. The Kern River Formation. Southeastern San Joaquin Valley, California. USGS Bulletin 1529-D.

Bartow, 1991. The Cenozoic Evolution of the San Joaquin Valley. United States Geological Survey Professional Paper 1501.

Bookman-Edmonston Engineering, Inc (B-E). 1968. Engineering Report in Support of Application for Federal Loan Under Public Law 984 For Construction of An Irrigation Distribution System. Prepared for Buttonwillow Improvement District of Semitropic Water Storage District, Kern County, CA. Amended April.

California Code of Regulations (CCR). 2018. MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants. January 2018.

California Department of Water Resources (DWR). 1981. Depth to The Top of Corcoran Clay. San Joaquin District.

DWR. 2006. San Joaquin Valley Groundwater Basin, Kern County Subbasin, Groundwater Basin Number 5-22.14, last update January 20, 2006.

DWR. 2014. Historical, and Estimated Potential for Future Land Subsidence in California.

DWR, 2016a. California's Groundwater. Bulletin 118. Interim Update 2016. December 22.

DWR. 2016b. San Joaquin Valley Groundwater Basin, Kern County Subbasin, Groundwater Basin Number 5-22.14, last update 2016. https://gis.water.ca.gov/app/bbat/. Accessed March 12, 2018.

DWR, 2016b. Best Management Practices for the Sustainable Management of Groundwater. Water Budget. December.

DWR. 2017a. Well Completion Report Map Application. last update 2017. http://wdl.water.ca.gov/groundwater/wells/well_completion_reports.cfm. Accessed March 12, 2018.

DWR. 2017b. Groundwater Information Center Interactive Map Application. Last update June 2017. https://gis.water.ca.gov/app/gicima/. Accessed 2017.

DWR. 2019. *Natural Communities Dataset Viewer.* https://gis.water.ca.gov/app/ncdatasetviewer/sitedocs/. Accessed January 2019.

DRAFT

CGS, 2010a. Geologic Map of California, http://maps.conservation.ca.gov/cgs/DataViewer/index.html. Accessed March 12, 2018.

California Geological Survey (CGS), 2010b. Fault Activity Map of California, http://maps.conservation.ca.gov/cgs/fam/, Accessed March 12, 2018.

Croft, M.G. 1972. Subsurface Geology of the Late Tertiary and Quaternary Water-Bearing Deposits of the Southern Part of the San Joaquin Valley,California; US Geological Survey Water Supply Paper 199H, 29p, and plates and maps.

Dale, R. H., James J. French, and G. V. Gordon. 1966. Groundwater Geology and Hydrology of the Kern River Alluvial Fan Area, California. US Geological Survey. Open-File Report 66-21.

Davis, G.H., Green, J.H., Olmstead, S.H., and Brown, D.W. 1959. Ground Water Conditions and Storage Capacity in the San Joaquin Valley, California; US Geological Survey Water Supply Paper No. 1469, 287 pp.

Davis, G. H., Lofgren, B. E., and Mack, Seymour. 1964. Use of ground-water reservoirs for storage of surface water in the San Joaquin Valley, California. U.S. Geological Survey Water-Supply Paper 1618, 125 p.

Department of Water and Power, City of Los Angeles (LADWP). 1974. San Joaquin Nuclear Project. Early Site Review Report. Vol. 1. February 28.

DWR. 2016. Monitoring Networks and Identification of Data Gaps. December.

DWR. 2016a. Monitoring Protocols, Standards, and Sites. December.

Encyclopedia Britannica (EB). 2018. https://www.britannica.com/. Accessed May 2018.

Environmental Science Associates (ESA). 2017. Kern River Water Allocation Plan. Draft Supplemental Environmental Impact Report. Prepared for Kern Delta Water District. August 2017.

Farr, T.G., C. Jones, Z. Liu, 2015, Progress report: Subsidence in the Central Valley, California. Submitted to California Department of Water Resources. Available at: http://www.nasa.gov/jpl/nasa californiadrought-causing-valley-land-to-sink.

Farr, T.G., C. Jones, Z. Liu, 2016, Progress report: Subsidence in the Central Valley, California. Submitted to California Department of Water Resources

Farrar and Bertoldi, 1988. Region 4, Central Valley and Pacific Coast Ranges. In. Hydrogeology. The Geology of North America. Eds. William Back, Joseph S. Rosenshein, Paul R. Seaber. Volume O-2. January.

DRAFT

Faunt, C., R.T. Hanson, K. Belitz, W. Schmid, S. Predmore, D. L. Rewis, and K. McPherson, 2009, Groundwater availability of the Central Valley Aquifer, California. USGS Professional Paper 1766. Reston, Va.: United States Department of the Interior, Geological Survey. http://pubs.usgs.gov/pp/1766.

Faunt, C.C., R.T. Hanson, and K. Belitz, 2009, Development of a three-dimensional model of sedimentary texture in valley-fill deposits of Central Valley, California, USA, Hydrogeology Journal (2010) 18: 625– 649.

Galloway, Devin; Jones, David R.; and Ingebritsen, S.E. 1999. Land Subsidence in the United States. U.S. Geological Survey Circular 1182

Gillespie, Janice, David Kong, and Stephen D. Anderson. 2017. Groundwater salinity in the southern San Joaquin Valley. AAPG Bulletin. v. 101, no. 8, p. 1239-1261.

Graham, S.A., Carroll, A.R., and Miller, G.E. 1988. Kern River Formation as a recorder of uplift and glaciation of the southern Sierra Nevada. in Graham, S.A., and Olson, H.C., eds. Studies of the geology of the San Joaquin Basin: Los Angeles. Pacific Section. Society of Economic Paleontologists and Mineralogists, book 60, p. 319-331.

Harter, T., J. R. Lund, J. Darby, G. E. Fogg, R. Howitt, K. K. Jessoe, G. S. Pettygrove, J. F. Quinn, J. H. Viers, D. B. Boyle, H. E. Canada, N. DeLaMora, K. N. Dzurella, A. Fryjoff-Hung, A. D. Hollander, K. L. Honeycutt, M. W. Jenkins, V. B. Jensen, A. M. King, G. Kourakos, D. Liptzin, E. M. Lopez, M. M. Mayzelle, A. McNally, J. Medellin-Azuara, and T. S. Rosenstock, 2012. Addressing Nitrate in California's Drinking Water With A Focus on Tulare Lake Basin and Salinas Valley Groundwater, Report for the State Water Resources Control Board Report to the Legislature, Center for Watershed Sciences, University of California, Davis, 87p.

Heath, R.C., 1983. Basic ground-water hydrology. U.S. Geological Survey Water-Supply Paper 2220, 86p.

Hem, J.D. 1985. Study and Interpretation of the Chemical Characteristics of Natural Water. 3rd Edition. US Geological Survey Water-Supply Paper 2254

Hilton, G.S., Klausing, R.L., and Kunkel, Fred. 1963. Geology, Hydrology, and Quality of Water in the Terra Bella-Lost Hills Area San Joaquin Valley, California. USGS Open-File Report 63-47.

Holzer, Thomas L. 1980. Faulting Caused by Groundwater Level Declines, San Joaquin Valley, California. Water Resources Research. Vol. 19. No. 6. pp. 1065-1070.

Hounslow, Arthur. 1995. Water Quality Data: Analysis and Interpretation. 416 p.

DRAFT

Kennedy and Jenks Consultants. 2011. Kern Integrated Regional Water Management Plan. November.

Kennedy and Jenks Consultants. 2015. Water Quality Assessment Report, Kern County 19.98 Zoning Ordinance EIR. In. Draft Environmental Impact Report. Kern County Planning and Community Development Department. July 2015.

Kern County Water Agency. 1968. Base of Corcoran Clay. Contoured by Richard S. Brown.

KCWA, 2018. Digital Data Delivery to GEI for historical groundwater records used in water supply contour maps.

Kern-Tulare Water District (KTWD). 2016. Analysis of Groundwater Resources. December 21st.

Lofgren, B.E., and Klausing. R.L., 1969, Land subsidence due to ground-water withdrawal, Tulare-Wasco area, California: U.S. Geological Survey Professional Paper 437-B, 103 p.

Luhdorff & Scalmanini Consulting Engineers (LSCE), Borchers James W. and Carpenter, Michael. 2014. Land Subsidence from Groundwater Use in California. Full Report of Findings. April.

Mendenhall, W.C., R.B. Dole, and Herman Stabler. 1916. Ground Water in San Joaquin Valley, California. U.S. Geological Survey Water-Supply Paper 398. 310p.

McClelland, E.J. 1962. Aquifer Test Compilation for the San Joaquin Valley, California. United States Geological Survey Open-File Data Report.

Morris, D.A. and A.I. Johnson. 1967. Summary of hydrologic and physical properties of rock and soil materials as analyzed by the Hydrologic Laboratory of the U.S. Geological Survey. U.S. Geological Survey Water-Supply Paper 1839-D. 42p.

Ojha, C., Werth, S., & Shirzaei, M. (2019). Groundwater loss and aquifer system compaction in San Joaquin Valley during 2012–2015 drought. Journal of Geophysical Research: Solid Earth, 124.

Pacific Geotechnical Associates, Inc. (PGA). 1991. Study of the Regional Geologic Structure Related to Groundwater Aquifers in the Southern San Joaquin Valley Groundwater Basin, Kern County, California. Prepared for Kern County Water Agency. September.

Page, R.W. 1973. Base of Fresh Ground Water (approximately 3,000 micromhos) in the San Joaquin Valley, California. Hydrologic Investigations Atlas HA-489. Washington D.C.: United States Department of the Interior, Geological Survey.

DRAFT

Page, 1983. Geology of the Tulare Formation and Other Continental Deposits, Kettleman City, San Joaquin Valley, California. Groundwater Management Considerations. WRI-R 83-4000.

Page 1986. Geology of the Fresh Groundwater Basin of the Central Valley, California with Texture Maps and Cross Sections. Professional Paper 1401-C.

Planert, Michael and Williams, J.S., 1995, Ground water atlas of the United States, segment 1, California, Nevada: U.S. Geological Survey Hydrologic Investigations Atlas 730–B, 28 p. Available at http://pubs.usgs.gov/ha/ha730/ch_b/index.html.

Provost and Pritchard, Inc. 2003. Arvin-Edison Water Storage District. Groundwater Management Plan. June 5th.

Provost and Pritchard, Land IQ, and Todd Groundwater. 2015. Kern River Watershed Coalition Authority. Groundwater Quality Assessment Report. February 2015.

Rector, Michael R.. 1983. Westside groundwater study: Western Oil and Gas Association. 246 p.

Scheirer, Allegra Hosford and Magoon, Leslie B. 2007. Chapter 5. Age, Distribution, and Stratigraphic Relationship of Rock Units in the San Joaquin Basin Province, California. In: Petroleum Systems and Geologic Assessment of Oil and Gas in the San Joaquin Basin Province, California. Ed. Allegra Hosford Scheirer. USGS Professional Paper 1713.

Semitropic Water Storage District (SWSD). 2012 Groundwater Management Plan.

Smith. Arthur R. 1964. Geologic Map of California. Bakersfield Sheet. 3rd printing 1975. State of California Department of Conservation.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at https://websoilsurvey.nrcs.usda.gov/. Accessed [4/11/18].

Southern San Joaquin Municipal Utility District (SSJMUD). 2012. Five Year Update. Agricultural Water Management Plan. May.

Todd Engineers with Kennedy and Jenks Consultants. 2007. Final AB3030 Groundwater Management Plan. Prepared for Wheeler Ridge-Maricopa Water Storage District. November.

Todd Groundwater. 2017. Final Groundwater Impacts Assessment Report. July 7.

DRAFT

Todd Groundwater. 2018. Kern Fan Model Report for Kern Fan Monitoring Committee. February

United States Bureau of Reclamation (USBR). 1948. Geologic Study of the Southern San Joaquin Municipal Utility District. February.

United States Department of Agriculture (USDA). 1981. Soil Survey of Kern County, California, Southeastern Part.

USDA. 1988. Soil Survey of Kern County, California, Northwestern Part.

USDA. 2007. Soil Survey of Kern County, Northeastern Part, and Southeastern Part of Tulare County, California.

USDA. 2009. Soil Survey of Kern County, California, Southwest Part.

United States Geological Survey. 2007. Petroleum Systems and Geologic Assessment of Oil and Gas in the San Joaquin Basin Province, California. Ed. Allegra Hosford Scheirer. USGS Professional Paper 1713.

Wentworth CM, Fisher GR, Levine P, Jachens RC. 1995. The surface of crystalline basement, Great Valley and Sierra Nevada, California; a digital map database. United States Geological Survey Open-File Report 95-0096, 16 pp.

Wood & Dale, 1964. Geology and Groundwater Features of the Edison-Maricopa Area, Kern County, CA USGS Water Supply Paper 1656.

Wood, P.R. and Davis, G.H. 1959. Groundwater Conditions in the Avenal-McKittrick Area Kings and Kern Counties California. Geological Survey Water-Supply Paper 1457.

Wood, P.R. and Davis, G.H. 1964. Geology and Groundwater Features of the Edison-Maricopa Area Kern County, California. Geological Survey Water-Supply Paper 1656.

DRAFT

Appendix

DRAFT

RESOLUTION NO. 2022-0019
A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING A RESOLUTION ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN

WHEREAS, the California State Department of Water Resources working under the Urban Water Management Planning Act; and

WHEREAS, the Act mandates that every urban water supplier providing municipal water directly or indirectly to more than 3,000 acre feet of water annually to develop a 2020 Urban Water Management Plan; and

WHEREAS, City of McFarland is an urban supplier of more than 3,000 acre feet of water annually, and has therefore prepared and circulated for public review a Draft 2020 Urban Water Management Plan, in compliance with the requirements of the Act, and a properly noticed shareholder's meeting regarding said plan held by City of McFarland and a final plan prepare; and

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of McFarland that it hereby finds and determines as follows:

1) The 2020 Urban Water Management Plan is hereby adopted and put into effect.
2) The City Manager is hereby authorized and directed to file this plan with the California Department of Water Resources.

I hereby certify that the foregoing is a full, true and correct copy of the resolution of the City Council of the City of McFarland at a meeting held on Thursday, April 14, 2022, moved by Councilmember _____and seconded by Councilmember _____, duly adopted and passed by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Sally Tafoya, Mayor

_____
Francisca Alvarado, City Clerk

NOTICE OF PUBLIC HEARING

Urban Water Management Plan at City Council Chambers
(103 W Sherwood Ave, McFarland)

Notice is hereby given that the City Council of the City of McFarland will conduct a public hearing, at which time you may be heard to consider the following:

Consideration and Adoption of a Resolution of McFarland Urban Water Management Plan.

Regular McFarland City Council Public Hearing Information

Date: April 14, 2022
Time: 6:00 PM
Place: City of McFarland Council Chambers, 103 W. Sherwood Avenue, McFarland, CA 93250

Join on-line: Facebook Webpage at:
https://www.facebook.com/cityofmcfarland/

These meetings shall be held in person at the City of McFarland Council Chambers, located at 103 W. Sherwood Avenue, McFarland, CA 93250. Additionally, these meetings shall be broadcast for listening and/or viewing purposes only via Facebook. To access the meetings for viewing or listening purposes only, please use the following information:

Join on-line: Facebook Webpage at: https://www.facebook.com/cityofmcfarland/

Members of the public are encouraged to participate by providing public comment at the meetings. The agenda of the Regular City Council Meeting will be posted at least 72 hours prior to the meeting. The meeting the agendas will be posted at https://www.mcfarlandcity.org/AgendaCenter. Please check the agendas for any modifications to how the meetings may be conducted and for ways in which the public can participate.

Description of Project:
The City of McFarland has received a grant for a Urban Water Management Plan to be developed in order to be in compliance with the state. The City is being pro-active and wanting to accomplish this study prior to being required due to the amount of water meter services a City may have without one. The threshold for this study to be required is 3000 and the City is right below that amount. The City has recently applied for an Annexation and with this plan, it shows how the City plans to develop and provide not only with the City limits now, but also for the annexation. This plan will bring the City in compliance with the state and provide a plan for all future growth.

CITY OF MCFARLAND MEMORANDUM

TO: THE HONORABLE MAYOR, AND MEMBERS OF THE CITY COUNCIL

FROM: NATHAN M. HODGES, CITY ATTORNEY

DATE: 04/14/2022

SUBJECT: ORDINANCE CHANGES RELATED TO MODIFICATION OR REVOCATION OF CONDITIONAL USE PERMITS

RECOMMENDATION:

Staff recommends the City Council open the public hearing, receive public testimony, waive the reading of the ordinance text in its entirety, read by title only, and introduce for reading Ordinance No 0004-2022 Amending Title 17, Chapter 17.152 to Add Sections 17.152.040 and 17.152.050 of the McFarland Municipal Code concerning Modification and Revocation/Suspension of Conditional Use Permits.

BACKGROUND:

Staff, while reviewing the Municipal Code has determined that the City currently does not have a procedure to modify or revoke conditional use permits. Conditional Use Permits run with the land and essentially act as a property right. Due to the nature of Conditional Use Permits, the City needs a procedure that can be relied upon by property owners and the City where a modification or a revocation is necessary. Because such a procedure is not codified, it is recommended that a change to the City's Ordinances be made in order to (1) promulgate the procedures that must be followed by the City to modify or revoke or suspend a conditional use permit, and (2) eliminate any ambiguity or uncertainty that may exist due to previous procedures that may have been utilized by the City to modify or revoke or suspend conditional use permits.

FISCAL IMPACT:

There is a minimal fiscal impact associated with modification of the Ordinances. Other than staff and attorney time, the modifications will have no direct financial impact.

ORDINANCE NO. 0004-2022

AN ORDINANCE OF THE CITY OF MCFARLAND AMENDING TITLE 17, CHAPTER 17.152 TO ADD SECTIONS 17.152.040 MODIFICATION OF CONDITIONAL USE PERMITS and 17.152.050 REVOCATION/SUSPENSION OF CONDITIONAL USE PERMITS TO THE MCFARLAND MUNICIPAL CODE.

Section 1. Recitals

WHEREAS, The City of McFarland ("City") desires to amend, clarify and codify its Municipal Code Chapter related to Conditional Use Permits;

WHEREAS, The Ordinance Amendment updates the Municipal Code to codify the procedure for modification or revocation of conditional use permits;

WHEREAS, Adoption of this Ordinance will provide uniform and comprehensive regulations and standards related to Title 17, Chapter 17.152 of the McFarland Municipal Code.

WHEREAS, Adoption of this Ordinance is in furtherance of the City's goals and objectives while reducing the potentially negative impacts arising from potentially deficient and/or incomplete/incompatible Municipal Code Chapters.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF MCFARLAND DOES ORDAIN AS FOLLOWS:

Section 1. Chapter 17.152 is of the McFarland Municipal Code is hereby amended to add Section 17.152.040 to read as follows:

17.152.040 Modification of Conditional Use Permits.

An Amendment to an approved Conditional Use Permit may be initiated by the City or the Property owner as follows:

A. An amendment which proposes one or more substantial amendments to a project, plans and/or conditions of approval approved in accordance with this title may be initiated by an applicant/property owner upon petition to the director and submittal of a fee, as established by resolution by the city council. The determination of what constitutes a substantial amendment shall be made by the director.

B. A substantial amendment to a project shall be considered by the same body which took the final action in approving the original project, utilizing the hearing and noticing procedures, review criteria and appeal procedures as required by this title. A substantial amendment to a project may require a new and separate environmental review.

C. The director is authorized to modify the approved plans and/or any of the conditions of approval if such modifications are determined by the director to be minor and if the director can make the following findings:

1. That the proposed modifications achieve substantially the same results as would strict compliance with the approved plans and conditions;

2. That the proposed modifications remain compatible with the character of the neighborhood;

3. That the proposed modifications do not result in a new or increased privacy infringement;

4. That the proposed modifications do not result in a new or increased adverse view impacts; and

5. That as modified, the project remain consistent with the General Plan, and Zoning Code.

D. The director shall send a notice of decision approving a minor modification to all interested parties on file with the city when the original project was being processed and to the members of the final deciding body allowing 15 calendar days after the decision, or 10 days after the mailing of the required notices, whichever date is later, to appeal the director's decision, pursuant to Chapter 17.148.100 (Findings) of the McFarland Municipal Code.

Section 2. Chapter 17.152 is of the McFarland Municipal Code is hereby amended to add Section 17.152.050 to read as follows:

17.152.050 Revocation/Suspension of Conditional Use Permit

A Conditional Use Permit granted pursuant to the procedures outlined in the McFarland Municipal Code may be revoked or suspended as follows:

The officer or body taking final action granting any permit pursuant to the provision of this title may, after following the same procedures utilized for approving such a permit, revoke or suspend the permit if:

1. The permit was issued erroneously; or

2. The permit was issued on the basis of incorrect or fraudulent information supplied by the applicant; or

3. The permit was issued contrary to the provisions of the municipal code; or

4. The permit is being or recently has been, exercised contrary to the terms or conditions of such permit.

No permit shall be revoked prior to providing a ten calendar day written notice to the holder of the permit and an opportunity to be heard before the officer or body considering revocation or suspension of the permit. Any decision to revoke or not to revoke a permit, other than a decision by the city council, may be appealed by any interested party pursuant to Chapter 17.80 (Hearing Notice and Appeal Procedures) of this title.

Section 3. Notice. The City clerk shall certify to the passage and adoption of this ordinance and shall cause this Ordinance to be posted within 15 days after its passage, in accordance with Section 36933 of the Government Code.

Section 4. Severability. If any section, subsection, sentence, clause, phrase, or word of this Ordinance is, for any reason, deemed or held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, or preempted by legislative enactment, such decision or legislation shall not affect the validity of the remaining portions of this Ordinance. The City Council of the City of McFarland hereby declares that it would have adopted this Ordinance and each section, subsection, sentence, clause, phrase, or word thereof, regardless of the fact that any one or more sections, subsections, clauses, phrases, or word might subsequently be declared invalid or unconstitutional or preempted by subsequent legislation.

Section 5. Effective Date. This Ordinance shall take effect thirty days after its adoption pursuant to California Government Code section 36937.

Section 6. Certification; Publication. The City Clerk shall certify to the passage and adoption of this Ordinance and shall cause the same to be published or posted according to law.

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I HEREBY CERTIFY that the foregoing Ordinance was introduced by the City Council after waiving reading, except by title, at a regular meeting thereof held on the 14th day of April 2022, and adopted the Ordinance after the second reading at a regular meeting held on the ___ day of _____ 2022, by the following roll call vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

ATTEST

_____

FRANCISCA ALVARADO, City Clerk

CITY OF MCFARLAND

By: _____
SALLY TAFOYA, Mayor

APPROVED AS TO FORM:

By: _____
NATHAN HODGES, City Attorney
Hodges Law Group

I,_____, City Clerk of the City of McFarland, California, DO HEREBY CERTIFY that the foregoing is a true and accurate copy of the Ordinance passed and adopted by the City Council of the City of McFarland on the date and by the vote indicated herein.

CITY OF MCFARLAND

MEMORANDUM

TO: HONORABLE MAYOR AND COUNCIL MEMBERS

FROM: Kenny Williams, City Manager
Larry A Ronk III, Interim Community Development Director

DATE: **April 14, 2022**

SUBJECT: Report, Discuss, and Possible Approval of Resolution NO. 2022- 0020 for Approval of Fund Appropriation to General Fund to Fund Elmo Hwy Road Expansion.

Discussion:

Shafter Medical Plaza LLC has brought a development to the City of McFarland for a multi-use medical facility. The development will provide on-site parking and will have some available parking along Elmo Hwy as well. Through the city circulation element and road dedication requirements, Elmo Hwy requires a widening of the road. This has occurred already on the Kendrea Apartments and Housing Tract 7214 Phase 4 along Elmo Hwy. The development is on the other side of the City sump which would create a pocket if the road were not widen by all properties along Elmo Hwy that are connected.

The City owns the property between the already widened road from the Kendrea Apartments and this development. Through the ordinance, the city can reimburse the development for the cost of work done based on the oversize road required by circulation element. The city project is being required due to the development occurring by the developer. The redevelopment would consist of decorative light installation, curb, sidewalk, road pavement, and relocation of existing fencing. Staff would like the approval of funds to create the road expansion, so this does not occur and provides a more efficient look and road along Elmo Hwy.

Fiscal Impact:

$133,533.51 – FUNDED TRAFFIC IMPACT FEES ($60,051.60 TRAFFIC IMPACT FEES FROM THIS DEVELOPMENT)

Recommendation:

It is recommended that the City Council approve the attached resolution to appropriate $133,533.51 to the general fund to for the Road Expansion in front of Elmo Sump.

Attachments:
Resolution No. 2022- 0020

RESOLUTION NO. 2022-0020

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING AN ADDITIONAL ALLOCATION OF FUNDS FROM THE GENERAL FUND FOR THE FUNDING OF ROAD EXPANSION INFRONT OF CITY PROPERTY ELMO SUMP

WHEREAS, the City Council of the City of McFarland has approved a fiscal year budget for 2021/2022; and

WHEREAS, the City Council believe that road expansion in front of the City's sump on Elmo Highway is necessary for proper storm drainage, sidewalks, and path of travel;

WHEREAS, the total funds needed for this appropriation to fund the road expansion described above is $133,533.51;

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of McFarland that it hereby finds and determines as follows:

1) The foregoing recitals are true and correct and incorporated herein as if set forth in full.

2) An additional $133,533.51 shall be allocated to the budget line for the Capital Improvement Fund from the City's General Fund.

3) The increased allocation shall be in full force and effect should the City approve any continuing resolutions pending approval of the 2022/2023 fiscal year budget.

4) The City Manager is hereby authorized and directed to utilize funds for road expansion on Elmo Highway.

5) The City Clerk shall certify to the passage and adoption of this resolution.

6) This resolution is effective immediately.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of McFarland on the 14th day of April 2022 by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

ATTEST:

_____

Francisca Alvarado, City Clerk

CITY OF MCFARLAND:

_____

Sally Tafoya, Mayor

I, _____, City Clerk of the City of McFarland, California, DO HEREBY CERTIFY that the foregoing resolution is a true and accurate copy of the Resolution passed and adopted by the City Council of the City of McFarland on the date and by the vote indicated herein.

_____

Francisca Alvarado, City Clerk

MEMORANDUM

CITY OF MCFARLAND

TO: Honorable Mayor and Council Members

FROM: Kenny Williams, City Manager
Larry A Ronk III, Interim Community Development Director

DATE: April 14, 2022

SUBJECT: Report, Discuss, and Possible Approval of Reimbursement Agreement with Shafter Medical Plaza LLC to Conduct a Road Widening Infront of City's Elmo Sump.

SUMMARY:

Shafter Medical Plaza LLC has brought a development to the City of McFarland for a multi-use medical facility. The development will provide on-site parking and will have some available parking along Elmo Hwy as well. Through the city circulation element and road dedication requirements, Elmo Hwy requires a widening of the road. This has occurred already on the Kendrea Apartments and Housing Tract 7214 Phase 4. The development is on the other side of the City sump which would create a pocket if road is not widen by all properties along Elmo Hwy that are connected.

The City owns the property between the already widened road from the Kendrea Apartments and this development. Through the ordinance, the city can reimburse the development for the cost of work done based on the oversize road required by circulation element. The City project is being required due to the development occurring by the developer.

Staff has reviewed options with City Attorney to utilize traffic impact fees to pay for the road expansion to provide proper sidewalks, drainage, and road dedications.

RECOMMENDATION:

Staff recommends the City Council to Approve Reimbursement Agreement with Shafter Medical Plaza LLC to Conduct a Road Widening Infront of City's Elmo Sump.

FISCAL IMPACT:

$145,490.99 – FUNDED TRAFFIC IMPACT FEES ($60,051.60 TRAFFIC IMPACT FEES FROM THIS DEVELOPMENT)

ATTACHMENTS:

RESOLUTION NO. 2022-0026

RESOLUTION NO. 2022-0026
A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING DEVELOPMENT IMPACT FEE CREDIT AGREEMENT FOR ELMO HWY MEDICAL PLAZA

WHEREAS, Shafter Medical Plaza, LLC ("Developer") owns 0.598 acres of real property located within the CITY which is more specifically described in the legal description set forth in Exhibit "A", attached hereto and incorporated herein by this reference ("Property");

WHEREAS, Developer has requested from CITY certain entitlements and/or permits for the construction of improvements on the Property, which are more particularly described as Elmo Sump Road Widening ("Project");

WHEREAS, CITY requires developers to pay certain development impact fees for the purpose of defraying all or a portion of the cost of public improvements, public services, and community amenities related to the their projects ("DIF");

WHEREAS, section 16.48.050 of the McFarland Municipal Code 1) authorizes the CITY to issue DIF credits to a developer who constructs certain public improvements that are included within the fee program to reduce their DIF obligation, and 2) authorize the CITY to reimburse a developer who constructs public improvements that are more costly than its DIF obligations;

WHEREAS, as a condition of CITY's approval of the Project, CITY has required Developer to construct certain public improvements that would be funded by the DIF Program ("DIF Improvements");

WHEREAS, CITY and Developer now desire to enter into this Agreement for the following purposes: (1) to provide for the timely delivery of the DIF Improvements, (2) expand the scope of the DIF Improvements, (3) to ensure that delivery of the DIF Improvements is undertaken as if the DIF Improvements were constructed under the direction and authority of the CITY, (4) to provide a means by which the Developer's costs for project delivery of the DIF Improvements and related right-of-ways is offset against Developer's obligation to pay the applicable DIF for the Project, and (5) to provide a means for Developer to be reimbursed to the extent the actual and authorized costs for the delivery of the DIF Improvements exceeds Developer's DIF obligations.

WHEREAS, in accordance with the proposed agreement attached hereto as Exhibit "B," the Developer will construct and widen road on behalf of City with credit and reimbursement of development impact fees, and

WHEREAS, the City Council received both written and oral testimony of Reimbursement Agreement on April 14th, 2022; and

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of McFarland that it hereby finds and determines as follows:

1) The foregoing recitals are true and correct.
2) The proposed project is consistent with the City of McFarland's Zoning classification;
3) The proposed project will assist the City in satisfying the required road widening per Circulation Element;
4) All cost by developer to install will be credited or reimbursed with development impact fees pursuant to the agreement attached hereto as Exhibit "B".

I hereby certify that the foregoing is a full, true and correct copy of the resolution of the City Council of the City of McFarland at a meeting held on Thursday, April 14, 2022, moved by Councilmember _____and seconded by Councilmember _____, duly adopted and passed by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Sally Gonazles, Mayor

_____
Francisca Alvarado, City Clerk

Attachments:

- Exhibit "A": legal description of the Property
- Exhibit "B": proposed reimbursement agreement

Exhibit A

EF

RECORDING REQUESTED BY

STEWART TITLE

AND WHEN RECORDED MAIL TO

NAME City of McFarland
STREET ADDRESS P.O. Box 1488
CITY & STATE McFarland, CA 93250

072913

BOOK 5945 PAGE 2383
1986 DEC -9 A 8:00

RECORDED BY GALE S. ENSTAD
KERN COUNTY CLERK-RECORDER

DRS .00
FREE REC .00
212060 COOL ROL TOY:01

SPACE ABOVE THIS LINE FOR RECORDER'S USE

136153

DOCUMENTARY TRANSFER TAX $ *nil
— COMPUTED ON FULL VALUE OF PROPERTY CONVEYED,
— OR COMPUTED ON FULL VALUE LESS LIENS AND ENCUMBRANCES REMAINING AT TIME OF SALE.
STEWART TITLE
Signature of Declarant or Agent determining tax. Firm Name

O OR
CH
LN
RF
MA

Individual Grant Deed

THIS FORM FURNISHED BY STEWART TITLE

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

JAMES E. MILES AND LAHOMA E. MILES, husband and wife as joint tenants

hereby GRANT(S) to

the CITY OF MC FARLAND, a municipal corporation

the following described real property in the City of McFarland
County of Kern State of California, described as:

Lot 49 of Tract 4795, in the City of McFarland, County of Kern, State of California, as per Map thereof recorded August 29, 1985, in Book 34, Page 144 of Maps, in the Office of the County Recorder of said County.

Excepting therefrom all oil, gas, hydrocarbons and all minerals lying in, on or under said land, as reserved in deeds of record.

Also excepting all remaining oil, gas, hydrocarbons and other minerals.
*Above described Lot 49 of Tract 4795 is for drainage purposes and is hereby granted to the City of McFarland as required.

Dated: November 12, 1986

James E. Miles

Lahoma E. Miles

By James E. Miles
Her Att. In Fact

STATE OF CALIFORNIA
COUNTY OF KERN } SS.

On November 12, 1986 before me, the undersigned, a Notary Public in and for said County and State, personally appeared JAMES E. MILES

.personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name IS subscribed to the within instrument and acknowledged that HE executed the same.

OFFICIAL SEAL
YVONNE THOMPSON
NOTARY PUBLIC-CALIFORNIA
BOND FILED IN
KERN COUNTY
My Commission Exp. Jan. 5, 1990

YVONNE THOMPSON
Name (Typed or Printed)
Notary Public in and for said County and State

APN

MAIL TAX
STATEMENTS TO: Name Address Zip

D-100

(Attorney in Fact)

BOOK 5945 PAGE 2384

STATE OF CALIFORNIA
COUNTY OF KERN } SS.

November 12, 1986

On _____ before me, the undersigned, a Notary Public in and for said State, personally appeared JAMES E. MILES, known to me to be the person whose name IS subscribed to the within instrument, as the Attorney in fact of LAHOMA E. MILES, and acknowledged to me that HE subscribed the name of LAHOME E. MILES thereto as principal and HIS own name as Attorney in fact.

STAPLE HERE

WITNESS my hand and official seal.

Signature Yvonne Thompson

YVONNE THOMPSON
Name (Typed or Printed)

OFFICIAL SEAL
YVONNE THOMPSON
NOTARY PUBLIC CALIFORNIA
PRINCIPAL OFFICE IN
KERN COUNTY
My Commission Exp. Jan. 5, 1990

(This area for official notarial seal)

BOOK 5945 PAGE 2385

CERTIFICATE OF ACCEPTANCE OF GRANT DEED
TO REAL PROPERTY IN THE CITY OF McFARLAND,
KERN COUNTY, CALIFORNIA

THIS IS TO CERTIFY that the interest in real property conveyed by the deed or grant dated Nov. 12, 1986, from James E. and Lahoma E. Miles, to the CITY OF McFARLAND, a municipal corporation, is hereby accepted by order of the City Council of the City of McFarland on Nov. 13, 1986, and the Grantee consents to recordation thereof by its duly authorized officer.

Dated: Dec. 4, 1986.

Carl L. Boston
CARL L. BOSTON, Mayor

STATE OF CALIFORNIA)
ss.
COUNTY OF KERN)

On this 4th day of December, in the year 1986, before me, the undersigned, a Notary Public in and for said State, personally appeared CARL L. BOSTON, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument as Mayor of the CITY OF McFARLAND and acknowledged to me that the CITY OF McFARLAND executed it.

WITNESS my hand and official seal.

(SEAL) OFFICIAL SEAL
M DWAIN SMITH
NOTARY PUBLIC - CALIFORNIA
KERN COUNTY
My comm. expires MAR 25, 1988

M. Dwain Smith
Notary Public

Exhibit B

DEVELOPMENT IMPACT FEE CREDIT AGREEMENT ELMO HWY MEDICAL PLAZA

This **DEVELOPMENT IMPACT FEE CREDIT AGREEMENT** ("Agreement") is entered into this _____day of _____, 20___ by and between the CITY OF MCFARLAND, a California municipal corporation ("CITY"), and SHAFTER MEDICAL PLAZA LLC, a California partnership, ("Developer"). CITY and Developer are sometimes hereinafter referred to individually as "Party" and collectively as "Parties".

RECITALS

WHEREAS, Developer owns 0.598 acres of real property located within the CITY which is more specifically described in the legal description set forth in Exhibit "A", attached hereto and incorporated herein by this reference ("Property");

WHEREAS, Developer has requested from CITY certain entitlements and/or permits for the construction of improvements on the Property, which are more particularly described as Elmo Sump Road Widening ("Project");

WHEREAS, CITY requires developers to pay certain development impact fees for the purpose of defraying all or a portion of the cost of public improvements, public services, and community amenities related to the their projects ("DIF");

WHEREAS, section 16.48.050 of the McFarland Municipal Code 1) authorize the CITY to issue DIF credits to a developer who constructs certain public improvements that are included within the fee program to reduce their DIF obligation, and 2) authorize the CITY to reimburse a developer who constructs public improvements that are more costly than its DIF obligations;

WHEREAS, as a condition of CITY's approval of the Project, CITY has required Developer to construct certain public improvements that would be funded by the DIF Program ("DIF Improvements");

WHEREAS, CITY and Developer now desire to enter into this Agreement for the following purposes: (1) to provide for the timely delivery of the DIF Improvements, (2) expand the scope of the DIF Improvements, (3) to ensure that delivery of the DIF Improvements is undertaken as if the DIF Improvements were constructed under the direction and authority of the CITY, (4) to provide a means by which the Developer's costs for project delivery of the DIF Improvements and related right-of-ways is offset against Developer's obligation to pay the applicable DIF for the Project, and (5) to provide a means for Developer to be reimbursed to the extent the actual and authorized costs for the delivery of the DIF Improvements exceeds Developer's DIF obligations.

NOW, THEREFORE, for the purposes set forth herein, and for good and valuable consideration, the adequacy of which is hereby acknowledged, Developer and CITY hereby agree as follows:

TERMS

1. Incorporation of Recitals. The Parties hereby affirm the facts set forth in the Recitals above and agree to the incorporation of the Recitals as though fully set forth herein.

2. Construction of DIF Improvements. Developer shall construct or have constructed at its own cost, expense, and liability certain DIF Improvements generally described as ROAD EXPANSION, and as shown more specifically on Exhibit "B," the plans, profiles, and specifications, which have been or will be prepared by or on behalf of Developer and approved by CITY, and which are incorporated herein by this reference. Construction of the DIF Improvements shall include any transitions and/or other incidental work deemed necessary for drainage or public safety. Developer shall be responsible for the replacement, relocation, or removal of any component of any existing public or private improvement in conflict with the construction or installation of the DIF Improvements. Such replacement, relocation, or removal shall be performed to the complete satisfaction of CITY and the owner of such improvement. Developer further promises and agrees to provide all equipment, tools, materials, labor, tests, design work, and engineering services necessary to fully and adequately complete the DIF Improvements.

    a. Pre-approval of Plans and Specifications. Developer is prohibited from commencing work on any portion of the DIF Improvements until all plans and specifications for the DIF Improvements have been submitted to and approved by CITY. Approval by CITY shall not relieve Developer from ensuring that all DIF Improvements conform with all other requirements and standards set forth in this Agreement.

    b. Permits and Notices. Prior to commencing any work, Developer shall, at its sole cost, expense, and liability, obtain all necessary permits and licenses and give all necessary and incidental notices required for the lawful construction of the DIF Improvements and performance of Developer's obligations under this Agreement. Developer shall conduct the work in full compliance with the regulations, rules, and other requirements contained in any permit or license issued to Developer.

    c. Public Works Requirements. In order to insure that the DIF Improvements will be constructed as if they had been constructed under the direction and supervision, or under the authority of, CITY, Developer shall comply with all of the following requirements with respect to the construction of the DIF Improvements:

        i. Developer shall obtain bids for the construction of the DIF Improvements, in conformance with the standard procedures and requirements of CITY with respect to its public works projects, or in a manner which is approved by the Public Works Department.

        ii. The contract or contracts for the construction of the DIF Improvements shall be awarded to the responsible bidder(s) submitting the lowest responsive

bid(s) for the construction of the DIF Improvements.

iii. Developer shall require, and the specifications and bid and contract documents shall require, all such contractors to pay prevailing wages (in accordance with Articles 1 and 2 of Chapter 1, Part 7, Division 2 of the Labor Code) and to otherwise comply with applicable provisions of the Labor Code, the Government Code and the Public Contract Code relating to public works projects of cities and as required by the procedures and standards of CITY with respect to the construction of its public works projects or as otherwise directed by the Public Works Department.

iv. All such contractors shall be required to provide proof of insurance coverage throughout the term of the construction of the DIF Improvements which they will construct in conformance with CITY's standard procedures and requirements.

v. Developer and all such contractors shall comply with such other requirements relating to the construction of the DIF Improvements which CITY may impose by written notification delivered to Developer and each such contractor at any time, either prior to the receipt of bids by Developer for the construction of the DIF Improvements, or, to the extent required as a result of changes in applicable laws, during the progress of construction thereof.

Developer shall provide proof to CITY, at such intervals and in such form as CITY may require that the foregoing requirements have been satisfied.

d. Quality of Work; Compliance With Laws and Codes. The construction plans and specifications for the DIF Improvements shall be prepared in accordance with all applicable federal, state and local laws, ordinances, regulations, codes, standards, and other requirements. The DIF Improvements shall be completed in accordance with all approved maps, plans, specifications, standard drawings, and special amendments thereto on file with CITY, as well as all applicable federal, state, and local laws, ordinances, regulations, codes, standards, and other requirements applicable at the time work is actually commenced.

e. Standard of Performance. Developer and its contractors, if any, shall perform all work required, constructing the DIF Improvements in a skillful and workmanlike manner, and consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Developer represents and maintains that it or its contractors shall be skilled in the professional calling necessary to perform the work. Developer warrants that all of its employees and contractors shall have sufficient skill and experience to perform the work assigned to them, and that they shall have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the work, and that such licenses, permits, qualifications and approvals shall be maintained throughout

the term of this Agreement.

f. Alterations to DIF Improvements. All work shall be done and the DIF Improvements completed as shown on approved plans and specifications, and any subsequent alterations thereto. If during the course of construction and installation it is determined that the public interest requires alterations in the DIF Improvements, Developer shall undertake such design and construction changes as may be reasonably required by CITY. Any and all alterations in the plans and specifications and the DIF Improvements to be completed may be accomplished without first giving prior notice thereof to Developer's surety for this Agreement.

3. Maintenance of DIF Improvements. CITY shall not be responsible or liable for the maintenance or care of the DIF Improvements until CITY approves and accepts them. CITY shall exercise no control over the DIF Improvements until accepted. Any use by any person of the DIF Improvements, or any portion thereof, shall be at the sole and exclusive risk of Developer at all times prior to CITY's acceptance of the DIF Improvements. Developer shall maintain all of the DIF Improvements in a state of good repair until they are completed by Developer and approved and accepted by CITY, and until the security for the performance of this Agreement is released. It shall be Developer's responsibility to initiate all maintenance work, but if it shall fail to do so, it shall promptly perform such maintenance work when notified to do so by CITY. If Developer fails to properly prosecute its maintenance obligation under this section, CITY may do all work necessary for such maintenance and the cost thereof shall be the responsibility of Developer and its surety under this Agreement. CITY shall not be responsible or liable for any damages or injury of any nature in any way related to or caused by the DIF Improvements or their condition prior to acceptance.

4. Fees and Charges. Developer shall, at its sole cost, expense, and liability, pay all fees, charges, and taxes arising out of the construction of the DIF Improvements, including, but not limited to, all plan check, design review, engineering, inspection, sewer treatment connection fees, and other service fees established by CITY.

5. CITY Inspection of DIF Improvements. Developer shall, at its sole cost, expense, and liability, and at all times during construction of the DIF Improvements, maintain reasonable and safe facilities and provide safe access for inspection by CITY of the DIF Improvements and areas where construction of the DIF Improvements is occurring or will occur.

6. Liens. Upon the expiration of the time for the recording of claims of liens as prescribed by Sections 8412 and 8414 of the Civil Code with respect to the DIF Improvements, Developer shall provide to CITY such evidence or proof as CITY shall require that all persons, firms and corporations supplying work, labor, materials, supplies and equipment to the construction of the DIF Improvements, have been paid, and that no claims of liens have been recorded by or on behalf of any such person, firm or corporation. Rather than await the expiration of the said time for the recording of claims of liens, Developer may elect to provide to CITY a title insurance policy or other security acceptable to CITY guaranteeing that no such claims of liens will be recorded or become a lien upon any of the

Property.

7. Acceptance of DIF Improvements; As-Built or Record Drawings. If the DIF Improvements are properly completed by Developer and approved by CITY, and if they comply with all applicable federal, state and local laws, ordinances, regulations, codes, standards, and other requirements, CITY shall be authorized to accept the DIF Improvements. CITY may, in its sole and absolute discretion, accept fully completed portions of the DIF Improvements prior to such time as all of the DIF Improvements are complete, which shall not release or modify Developer's obligation to complete the remainder of the DIF Improvements. Upon the total or partial acceptance of the DIF Improvements by CITY, Developer shall file with the Recorder's Office of the County of Kern a notice of completion for the accepted DIF Improvements in accordance with California Civil Code sections 8182, 8184, 9204, and 9208 ("Notice of Completion"), at which time the accepted DIF Improvements shall become the sole and exclusive property of CITY without any payment therefore. Notwithstanding the foregoing, CITY may not accept any DIF Improvements unless and until Developer provides one (1) set of "as-built" or record drawings or plans to the CITY for all such DIF Improvements. The drawings shall be certified and shall reflect the condition of the DIF Improvements as constructed, with all changes incorporated therein.

8. Warranty and Guarantee. Developer hereby warrants and guarantees all the DIF Improvements against any defective work or labor done, or defective materials furnished in the performance of this Agreement, including the maintenance of the DIF Improvements, for a period of one (1) year following completion of the work and acceptance by CITY ("Warranty"). During the Warranty, Developer shall repair, replace, or reconstruct any defective or otherwise unsatisfactory portion of the DIF Improvements, in accordance with the current ordinances, resolutions, regulations, codes, standards, or other requirements of CITY, and to the approval of CITY. All repairs, replacements, or reconstruction during the Warranty shall be at the sole cost, expense, and liability of Developer and its surety. As to any DIF Improvements which have been repaired, replaced, or reconstructed during the Warranty, Developer and its surety hereby agree to extend the Warranty for an additional one (1) year period following CITY's acceptance of the repaired, replaced, or reconstructed DIF Improvements. Nothing herein shall relieve Developer from any other liability it may have under federal, state, or local law to repair, replace, or reconstruct any DIF Improvement following expiration of the Warranty or any extension thereof. Developer's warranty obligation under this section shall survive the expiration or termination of this Agreement.

9. Administrative Costs. If Developer fails to construct and install all or any part of the DIF Improvements, or if Developer fails to comply with any other obligation contained herein, Developer and its surety shall be jointly and severally liable to CITY for all administrative expenses, fees, and costs, including reasonable attorney's fees and costs, incurred in obtaining compliance with this Agreement or in processing any legal action or for any other remedies permitted by law.

10. Default; Notice; Remedies.
    a. Notice. If Developer neglects, refuses, or fails to fulfill or timely complete any

obligation, term, or condition of this Agreement, or if CITY determines there is a violation of any federal, state, or local law, ordinance, regulation, code, standard, or other requirement, CITY may at any time thereafter declare Developer to be in default or violation of this Agreement and make written demand upon Developer or its surety, or both, to immediately remedy the default or violation ("Notice"). Developer shall substantially commence the work required to remedy the default or violation within five (5) days of the Notice. If the default or violation constitutes an immediate threat to the public health, safety, or welfare, CITY may provide the Notice verbally, and Developer shall substantially commence the required work within twenty-four (24) hours thereof. Immediately upon CITY's issuance of the Notice, Developer and its surety shall be liable to CITY for all costs of construction and installation of the DIF Improvements and all other administrative costs or expenses as provided for in this Section 10.0 of this Agreement.

b. Failure to Remedy; CITY Action. If the work required to remedy the noticed default or violation is not diligently prosecuted to a completion acceptable to CITY within the time frame contained in the Notice, CITY may complete all remaining work, arrange for the completion of all remaining work, and/or conduct such remedial activity as in its sole and absolute discretion it believes is required to remedy the default or violation. All such work or remedial activity shall be at the sole and absolute cost, expense, and liability of Developer and its surety, without the necessity of giving any further notice to Developer or surety. CITY's right to take such actions shall in no way be limited by the fact that Developer or its surety may have constructed any of the DIF Improvements at the time of CITY's demand for performance. In the event CITY elects to complete or arrange for completion of the remaining work and the DIF Improvements, CITY may require all work by Developer or its surety to cease in order to allow adequate coordination by CITY.

c. Other Remedies. No action by CITY pursuant to this Section 10.0 et seq. of this Agreement shall prohibit CITY from exercising any other right or pursuing any other legal or equitable remedy available under this Agreement or any federal, state, or local law. CITY may exercise its rights and remedies independently or cumulatively, and CITY may pursue inconsistent remedies. CITY may institute an action for damages, injunctive relief, or specific performance.

11. Security; Surety Bonds. Prior to the commencement of any work on the DIF Improvements, Developer or its contractor shall provide CITY with surety bonds in the amounts and under the terms set forth below ("Security"). The amount of the Security shall be based on the estimated actual costs to construct the DIF Improvements, as determined by CITY after Developer has awarded a contract for construction of the DIF Improvements to the lowest responsive and responsible bidder in accordance with this Agreement ("Estimated Costs"). If CITY determines, in its sole and absolute discretion, that the Estimated Costs have changed, Developer or its contractor shall adjust the Security in the amount requested by CITY. Developer's compliance with this Section 11.0 *et seq.* of this Agreement shall in no way limit or modify Developer's indemnification obligation provided in Section 12.0 of this Agreement.

a. Performance Bond. To guarantee the faithful performance of the DIF Improvements and all the provisions of this Agreement, to protect CITY if Developer is in default as set forth in Section 10.0 *et seq*. of this Agreement, and to secure the one-year guarantee and warranty of the DIF Improvements, Developer or its contractor shall provide CITY a faithful performance bond in an amount which sum shall be not less than one hundred percent (100%) of the Estimated Costs. The CITY may, in its sole and absolute discretion, partially release a portion or portions of the security provided under this section as the DIF Improvements are accepted by CITY, provided that Developer is not in default on any provision of this Agreement and the total remaining security is not less than fifty percent (50%) of the Estimated Costs. All security provided under this section shall be released at the end of the Warranty period, or any extension thereof as provided in Section 11.0 of this Agreement, provided that Developer is not in default on any provision of this Agreement.

b. Labor & Material Bond. To secure payment to the contractors, subcontractors, laborers, materialmen, and other persons furnishing labor, materials, or equipment for performance of the DIF Improvements and this Agreement, Developer or its contractor shall provide CITY a labor and materials bond in an amount which sum shall not be less than one hundred percent (100%) of the Estimated Costs. The security provided under this section may be released by written authorization of CITY after six (6) months from the date CITY accepts the DIF Improvements. The amount of such security shall be reduced by the total of all stop notice or mechanic's lien claims of which CITY is aware, plus an amount equal to twenty percent (20%) of such claims for reimbursement of CITY's anticipated administrative and legal expenses arising out of such claims.

c. Additional Requirements. The surety for any surety bonds provided as Security shall have a current A.M. Best rating of at least "A" and FSC-VIII, shall be licensed to do business in California, and shall be satisfactory to CITY. As part of the obligation secured by the Security and in addition to the face amount of the Security, Developer, its contractor or the surety shall secure the costs and reasonable expenses and fees, including reasonable attorney's fees and costs, incurred by CITY in enforcing the obligations of this Agreement. Developer, its contractor and the surety shall stipulate and agree that no change, extension of time, alteration, or addition to the terms of this Agreement, the DIF Improvements, or the plans and specifications for the DIF Improvements shall in any way affect its obligation on the Security.

d. Evidence and Incorporation of Security. Evidence of the Security shall be provided on the forms set forth in Exhibit "C", unless other forms are deemed acceptable by the CITY, and when such forms are completed to the satisfaction of CITY, the forms and evidence of the Security shall be attached hereto as Exhibit "C" and incorporated herein by this reference.

12. Indemnification. Developer shall defend, indemnify, and hold harmless CITY, its elected officials, employees, and agents from any and all actual or alleged claims, demands, causes of action, liability, loss, damage, or injury to property or persons, including wrongful death, whether imposed by a court of law or by administrative action of any federal, state, or local governmental CITY, arising out of or incident to any acts, omissions, negligence, or willful misconduct of Developer, its employees, contractors, or agents in connection with the performance of this Agreement, or arising out of or in any way related to or caused by the DIF Improvements or their condition prior to CITY's approval and acceptance of the DIF Improvements ("Claims"). This indemnification includes, without limitation, the payment of all penalties, fines, judgments, awards, decrees, attorneys' fees, and related costs or expenses, and the reimbursement of CITY, its elected officials, employees, and/or agents for all legal expenses and costs incurred by each of them. This indemnification excludes only such portion of any Claim which is caused solely and exclusively by the negligence or willful misconduct of CITY as determined by a court or administrative body of competent jurisdiction. Developer's obligation to indemnify shall survive the expiration or termination of this Agreement, and shall not be restricted to insurance proceeds, if any, received by CITY, its elected officials, employees, or agents.

13. Insurance.

    a. Types; Amounts. Developer shall procure and maintain, and shall require its contractors to procure and maintain, during performance of this Agreement, insurance of the types and in the amounts described below ("Required Insurance"). If any of the Required Insurance contains a general aggregate limit, such insurance shall apply separately to this Agreement or be no less than two times the specified occurrence limit.

        i. General Liability. Occurrence version general liability insurance, or equivalent form, with a combined single limit of not less than Two Million Dollars ($2,000,000) per occurrence for bodily injury, personal injury, and property damage.

        ii. Business Automobile Liability. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than One Million Dollars ($1,000,000) per occurrence. Such insurance shall include coverage for the ownership, operation, maintenance, use, loading, or unloading of any auto owned, leased, hired, or borrowed by the insured or for which the insured is responsible.

        iii. Workers' Compensation. Workers' compensation insurance with limits as required by the Labor Code of the State of California and employers' liability insurance with limits of not less than One Million Dollars ($1,000,000) per occurrence, at all times during which insured retains employees.

        iv. Professional Liability. For any consultant or other professional who will

engineer or design the DIF Improvements, liability insurance for errors and omissions with limits not less than Two Million Dollars ($2,000,000) per occurrence, shall be procured and maintained for a period of five (5) years following completion of the DIF Improvements. Such insurance shall be endorsed to include contractual liability.

b. Deductibles. Any deductibles or self-insured retentions must be declared to and approved by CITY. At the option of CITY, either: (a) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects CITY, its elected officials, officers, employees, agents, and volunteers; or (b) Developer and its contractors shall provide a financial guarantee satisfactory to CITY guaranteeing payment of losses and related investigation costs, claims, and administrative and defense expenses.

c. Additional Insured; Separation of Insureds. The Required Insurance, except for the professional liability and workers' compensation insurance, shall name CITY, its elected officials, officers, employees, and agents as additional insureds with respect to work performed by or on behalf of Developer or its contractors, including any materials, parts, or equipment furnished in connection therewith. The Required Insurance shall contain standard separation of insureds provisions, and shall contain no special limitations on the scope of its protection to CITY, its elected officials, officers, employees, or agents.

d. Primary Insurance; Waiver of Subrogation. The Required Insurance shall be primary with respect to any insurance or self-insurance programs covering CITY, its elected officials, officers, employees, or agents. The policy required for workers' compensation insurance shall provide that the insurance company waives all right of recovery by way of subrogation against CITY in connection with any damage or harm covered by such policy.

e. Certificates; Verification. Developer and its contractors shall furnish CITY with original certificates of insurance and endorsements effecting coverage for the Required Insurance. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements must be received and approved by CITY before work pursuant to this Agreement can begin. CITY reserves the right to require complete, certified copies of all required insurance policies, at any time.

f. Term; Cancellation Notice. Developer and its contractors shall maintain the Required Insurance for the term of this Agreement and shall replace any certificate, policy, or endorsement which will expire prior to that date. All policies shall be endorsed to provide that the Required Insurance shall not be suspended, voided, reduced, canceled, or allowed to expire except on thirty (30) days' prior written notice to CITY.

g. Insurer Rating. Unless approved in writing by CITY, all Required Insurance shall

be placed with insurers licensed to do business in the State of California and with a current A.M. Best rating of at least "A" and FSC-VIII.

14. DIF Credits.

a. Developer's DIF Obligation. Developer hereby agrees and accepts that as of the date of this Agreement, the amount Developer is obligated to pay to CITY as part of the DIF Program is SIXTY THOUSAND FIFTY ONE AND SIXTY CENTS ($60,051.60) ("DIF Obligation"). This DIF Obligation shall be initially determined under the nexus study and fee schedule in effect for the CITY at the time the Developer submits a building permit application for the DIF Improvements. This DIF Obligation does not have to be paid until the Certificate of Occupancy is obtained. Notwithstanding the foregoing, Developer agrees that this Agreement shall not estop CITY from adjusting the DIF.

b. Credit Offset Against DIF Obligation. Pursuant to section 16.48.050(C) of the McFarland Municipal Code and in consideration for Developer's obligation under this Agreement for the delivery of DIF Improvements, credit shall be applied by CITY to offset the DIF Obligation subject to adjustment and reconciliation under Section 14(d) of this Agreement ("DIF Credit"). Developer hereby agrees that the amount of the DIF Credit shall be applied after Developer has initiated the process of project delivery of DIF Improvements to the lowest responsible bidder in accordance with this Agreement. Developer further agrees that the dollar amount of the DIF Credit shall be equal to the lesser of: (A) the City Engineer's Estimate of the actual value of the DIF Improvements; or (B) the estimated cost of the DIF Improvements as identified in the DIF study in effect at the time of the issuance of a building permit for the project ("DIF Unit Cost Assumptions").

The City Engineer's Estimate and the DIF Unit Cost Assumptions shall hereafter be collectively referred to as "DIF Estimated Credit". At no time will the DIF Credit exceed the Developer's DIF Obligation. If the dollar amount of the DIF Estimated Credit exceeds the dollar amount of the DIF Obligation, Developer will be deemed to have completely satisfied its DIF Obligation for the Project and may apply for a reimbursement agreement, to the extent applicable, as provided in Section 14(e) of this Agreement. CITY shall provide Developer written notice of the determinations that CITY makes pursuant to this section, including how the DIF Credit is applied to offset the DIF Obligation as described above.

c. Verified Cost of the DIF Improvements. Upon recordation of the Notice of Completion for the DIF Improvements and acceptance of the DIF Improvements by CITY, Developer shall submit to the CITY Public Works Director the information set forth in the attached Exhibit "D". The CITY Public Works Director, or his or her designee, shall use the information provided by Developer to calculate the total actual costs incurred by Developer in delivering the DIF Improvements covered under this Agreement ("DIF Verified Costs"). The CITY Public Works Director will use his or her best efforts to determine the amount of the DIF Verified

Costs and provide Developer written notice thereof within thirty (30) calendar days of receipt of all the required information from Developer.

d. Reconciliation; Final Credit Offset Against DIF Obligations. The Developer is aware of and accepts the fact that credits are speculative and conceptual in nature. The actual amount of DIF Credit that shall be applied by CITY to offset the DIF Obligation shall be equal to the lesser of: (A) the DIF Verified Costs or (B) the DIF Unit Cost Assumptions as determined in accordance with Section 14(b) of this Agreement ("Actual DIF Credit"). No Actual DIF Credit will be awarded until the DIF Verified Costs are determined through the reconciliation process. Please be advised that while a Developer may use an engineer's estimate in order to estimate DIF Credits for project planning purposes, the Actual DIF Credit awarded will only be determined by the reconciliation process.

   i. DIF Balance. If the dollar amount of the Actual DIF Credit is less than the dollar amount of the DIF Obligation, the CITY Public Works Director shall provide written notice to Developer of the amount of the difference owed ("DIF Balance") and Developer shall pay the DIF Balance to fully satisfy the DIF Obligation.

   ii. DIF Reimbursement. If the dollar amount of the Actual DIF Credit exceeds the DIF Obligation, Developer will be deemed to have fully satisfied the DIF Obligation for the Project and may apply for a reimbursement, to the extent applicable, as provided in Section 14(e) of this Agreement.

   iii. DIF Overpayment. If the dollar amount of the Actual DIF Credit exceeds the Estimated Credit, but is less than the DIF Obligation, but the Actual Credit plus additional monies collected by CITY from Developer for the DIF Obligation exceed the DIF Obligation ("DIF Overpayment"), Developer will be deemed to have fully satisfied the DIF Obligation for the Project and may be entitled to a refund.

e. Reimbursement. If authorized under either Section 14(b) or Section 14(d) Developer may apply to CITY for a reimbursement for the amount by which the Actual DIF Credit exceeds the DIF Obligation, as determined pursuant to Section 15(d) of this Agreement, section 16.48.050 of the McFarland Municipal Code. If CITY agrees to a Reimbursement Agreement with Developer, the Reimbursement Agreement shall be executed on the form set forth in Exhibit "E," and shall contain the terms and conditions set forth therein. The Parties agree that the Reimbursement Agreement shall be subject to all terms and conditions of this Agreement, and that upon execution, an executed copy of the Reimbursement Agreement shall be attached hereto and shall be incorporated herein as a material part of this Agreement as though fully set forth herein.

15. Miscellaneous.

a. Assignment. Developer may assign all or a portion of its rights pursuant to this Agreement to a purchaser of a portion or portions of the Property ("Assignment"). Developer and such purchaser and assignee ("Assignee") shall provide to CITY such reasonable proof as it may require that Assignee is the purchaser of such portions of the Property. Any assignment pursuant to this section shall not be effective unless and until Developer and Assignee have executed an assignment agreement with CITY in a form reasonably acceptable to CITY, whereby Developer and Assignee agree, except as may be otherwise specifically provided therein, to the following: (1) that Assignee shall receive all or a portion of Developer's rights pursuant to this Agreement, including such credit as is determined to be applicable to the portion of the Property purchased by Assignee pursuant to Section 14 *et seq*. of this Agreement, and (2) that Assignee shall be bound by all applicable provisions of this Agreement.

b. Relationship Between the Parties. The Parties hereby mutually agree that this Agreement shall not operate to create the relationship of partnership, joint venture, or CITY between CITY and Developer. Developer's contractors are exclusively and solely under the control and dominion of Developer. Nothing herein shall be deemed to make Developer or its contractors an agent or contractor of CITY.

c. Warranty as to Property Ownership; Authority to Enter Agreement. Developer hereby warrants that it owns fee title to the Property and that it has the legal capacity to enter into this Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority make this Agreement and bind each respective Party.

d. Prohibited Interests. Developer warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Developer, to solicit or secure this Agreement. Developer also warrants that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for Developer, any fee, commission, percentage, brokerage fee, gift, or other consideration contingent upon the making of this Agreement. For breach of this warranty, CITY shall have the right to rescind this Agreement without liability.

e. Notices. All notices, demands, invoices, and written communications shall be in writing and delivered to the following addresses or such other addresses as the Parties may designate by written notice:

To CITY:	City of McFarland Attn: Public Works Director 401 W Kern Avenue McFarland, CA 93250
To Developer:	Shafter Medical Plaza LLC Attn: Ayodeji Ayeni PO BOX 22694

Bakersfield CA 93390

Depending upon the method of transmittal, notice shall be deemed received as follows: by messenger, as of the date delivered; and by U.S. Mail first class postage prepaid, as of 72 hours after deposit in the U.S. Mail.

f. Cooperation; Further Acts. The Parties shall fully cooperate with one another, and shall take any additional acts or sign any additional documents as may be necessary, appropriate, or convenient to attain the purposes of this Agreement.

g. Construction; References; Captions. It being agreed the Parties or their agents have participated in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term referencing time, days, or period for performance shall be deemed calendar days and not work days. All references to Developer include all personnel, employees, agents, and contractors of Developer, except as otherwise specified in this Agreement. All references to CITY include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content, or intent of this Agreement.

h. Amendment; Modification. No supplement, modification, or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties.

i. Waiver. No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual right by custom, estoppel, or otherwise.

j. Binding Effect. Each and all of the covenants and conditions shall be binding on and shall inure to the benefit of the Parties, and their successors, heirs, personal representatives, or assigns. This section shall not be construed as an authorization for any Party to assign any right or obligation.

k. No Third Party Beneficiaries. There are no intended third-party beneficiaries of any right or obligation assumed by the Parties.

l. Invalidity; Severability. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

m. Consent to Jurisdiction and Venue. This Agreement shall be construed in accordance with and governed by the laws of the State of California. Any legal action or proceeding brought to interpret or enforce this Agreement, or which in any way arises out of the Parties' activities undertaken pursuant to this Agreement,

shall be filed and prosecuted in the appropriate California State Court in the County of Kern, California. Each Party waives the benefit of any provision of state or federal law providing for a change of venue to any other court or jurisdiction including, without limitation, a change of venue based on the fact that a governmental entity is a party to the action or proceeding, or that a federal right or question is involved or alleged to be involved in the action or proceeding. Without limiting the generality of the foregoing waiver, Developer expressly waives any right to have venue transferred pursuant to California Code of Civil Procedure Section 394.

n. Time is of the Essence. Time is of the essence in this Agreement, and the Parties agree to execute all documents and proceed with due diligence to complete all covenants and conditions.

o. Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original and which collectively shall constitute one instrument.

p. Entire Agreement. This Agreement contains the entire agreement between CITY and Developer and supersedes any prior oral or written statements or agreements between CITY and Developer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the day and year first above written.

Dated: _____

City of McFarland,
a California municipal corporation

By: _____
Sally Tafoya,
Mayor

Attest:

_____
Francisca Alvarado, City Clerk

Dated: _____

INSERT NAME,
a California corporation/limited liability company

By: _____
Name: _____
Title: _____

SIGNATURES MUST BE NOTARIZED

Approved as to form:

_____
Nathan Hodges, City Attorney

EXHIBIT "A"

LEGAL DESCRIPTION OF PROPERTY

[ATTACHED BEHIND THIS PAGE]

E F

RECORDING REQUESTED BY

STEWART TITLE

AND WHEN RECORDED MAIL TO

NAME City of McFarland
STREET ADDRESS P.O. Box 1488
CITY & STATE McFarland, CA 93250

072913

BOOK 5945 PAGE 2383
1986 DEC -9 A 8:00

RECORDED BY GALE S. ENSTAD
KERN COUNTY CLERK-RECORDER

DRS .00
FEE REC .00
[illegible]

SPACE ABOVE THIS LINE FOR RECORDER'S USE

136/53

DOCUMENTARY TRANSFER TAX $ *nil
— COMPUTED ON FULL VALUE OF PROPERTY CONVEYED,
— OR COMPUTED ON FULL VALUE LESS LIENS AND ENCUMBRANCES REMAINING AT TIME OF SALE
STEWART TITLE
Signature of Declarant or Agent determining tax. Firm Name

Individual Grant Deed

THIS FORM FURNISHED BY STEWART TITLE

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

JAMES E. MILES AND LAHOMA E. MILES, husband and wife as joint tenants

hereby GRANT(S) to

the CITY OF MC FARLAND, a municipal corporation

the following described real property in the City of McFarland
County of Kern State of California, described as:

Lot 49 of Tract 4795, in the City of McFarland, County of Kern, State of California, as per Map thereof recorded August 29, 1985, in Book 34, Page 144 of Maps, in the Office of the County Recorder of said County.

Excepting therefrom all oil, gas, hydrocarbons and all minerals lying in, on or under said land, as reserved in deeds of record.

Also excepting all remaining oil, gas, hydrocarbons and other minerals.
*Above described Lot 49 of Tract 4795 is for drainage purposes and is hereby granted to the City of McFarland as required.

Dated: November 12, 1986

James E. Miles

Lahoma E. Miles

By James E. Miles
Her Att. In Fact

STATE OF CALIFORNIA
COUNTY OF KERN } ss.

On November 12, 1986 before me, the undersigned, a Notary Public in and for said County and State, personally appeared JAMES E. MILES

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name IS subscribed to the within instrument and acknowledged that HE executed the same.

OFFICIAL SEAL
YVONNE THOMPSON
NOTARY PUBLIC-CALIFORNIA
BOND FILED IN
KERN COUNTY
My Commission Exp. Jan 5, 1990

YVONNE THOMPSON
Name (Typed or Printed)
Notary Public in and for said County and State

APN

MAIL TAX
STATEMENTS TO: Name Address Zip

D-100

(Attorney in Fact)

STATE OF CALIFORNIA
COUNTY OF KERN } ss.

BOOK 5945 PAGE 2384

On November 12, 1986 before me, the undersigned, a Notary Public in and for said State, personally appeared JAMES E. MILES, known to me to be the person whose name IS subscribed to the within instrument, as the Attorney in fact of LAHOMA E. MILES, and acknowledged to me that HE subscribed the name of LAHOMA E. MILES thereto as principal and HIS own name as Attorney in fact.

STAPLE HERE

WITNESS my hand and official seal.

Signature Yvonne Thompson

YVONNE THOMPSON
Name (Typed or Printed)

OFFICIAL SEAL
YVONNE THOMPSON
NOTARY PUBLIC-CALIFORNIA
COUNTY OF KERN
My Commission Exp. Jan. 5, 1990

(This area for official notarial seal)

BOOK 5945 PAGE 2385

CERTIFICATE OF ACCEPTANCE OF GRANT DEED
TO REAL PROPERTY IN THE CITY OF McFARLAND,
KERN COUNTY, CALIFORNIA

THIS IS TO CERTIFY that the interest in real property conveyed by the deed or grant dated Nov. 12, 1986, from James E. and Lahoma E. Miles, to the CITY OF McFARLAND, a municipal corporation, is hereby accepted by order of the City Council of the City of McFarland on Nov. 13, 1986, and the Grantee consents to recordation thereof by its duly authorized officer.

Dated: Dec. 4, 1986.

Carl L. Boston
CARL L. BOSTON, Mayor

STATE OF CALIFORNIA)
ss.
COUNTY OF KERN)

On this 4th day of December, in the year 1986, before me, the undersigned, a Notary Public in and for said State, personally appeared CARL L. BOSTON, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument as Mayor of the CITY OF McFARLAND and acknowledged to me that the CITY OF McFARLAND executed it.

WITNESS my hand and official seal.

(SEAL) OFFICIAL SEAL
M DWAIN SMITH
NOTARY PUBLIC - CALIFORNIA
KERN COUNTY
My comm. expires MAR 25, 1988

M. Dwain Smith
Notary Public

EXHIBIT "E"

DIF IMPROVEMENTS

[ATTACHED BEHIND THIS PAGE]

McFarland Medical Plaza
221 Elmo Hwy.
McFarland, Ca.

IN FRONT OF PROPERTY

Demo & Grading		$17,062.25
Relocation of excess soil to in front of sump		$1,870.37
Curb, Gutter, Sidewalk & Approaches		$28,247.47
Possible Curb, Gutter & Sidewalk Tye-in		$1,683.00
Asphalt		$16,003.09
	Sub-Total	$64,866.19

IN FRONT OF SUMP

Demo & Grading		$39,080.88
Relocation of excess soil to in front of sump, fence removal & reset		$23,434.32
Curb, Gutter, Sidewalk & Approach		$27,945.36
Asphalt		$45,099.30
Road Striping as Needed		$2,775.00
	Sub-Total	$138,334.86

SANITARY SEWER

Saw cut & demo of asphalt		$11,612.70
Trenching & traffic control		$23,393.70
Sewer Pipe, 2 Manholes		$18,580.32
Backfil & compaction		$24,538.14
Asphalt patching		$19,541.87
	Sub-Total	$97,666.73
	Total Cost of All	$292,604.94

Project Detail

Wednesday, April 6, 2022
12:51:39 PM

McIntosh Engineering Group — Job-to-Date through 4/30/2022

Show Unposted

Project Number: 021-023-000 McFarland Medical Facility

Principal:	Sean Reed	% Complete:		Direct Labor:	
Project Manager:	Sean Reed	Labor % Complete:		Direct Expense:	
Client:	Shafter Medical Plaza LLC	Expense % Complete:		Direct Consultant:	
Organization:	BU:01	Start Date:	4/29/2021	Reimbursable Expense:	
Status:	Active	Complete Date:		Reimbursable Consultant:	
Type:	Regular			Total Fee:	

Phase Number: 005 Compliance with Site Plan COAs

Principal:	Roger McIntosh	% Complete:		Direct Labor:	
Project Manager:	James Delmarter	Labor % Complete:		Direct Expense:	
Client:	Shafter Medical Plaza LLC	Expense % Complete:		Direct Consultant:	
Organization:	BU:01	Start Date:	4/29/2021	Reimbursable Expense:	
Status:	Active	Complete Date:		Reimbursable Consultant:	
Type:	Regular	Unit Table:	1	Total Fee:	
Revenue Method:	B	Budgeted OH Rate:		Multiplier/Amount:	

Labor

				Total Hours	Labor Category	JTD T&M
084	B	428	Reed, Sean 3/8/2022	.30	SR RCE	79.50
			Coordination with City staff regarding pavement section			
084	B	428	Reed, Sean 3/9/2022	.50	SR RCE	132.50
			Coordination of sewer point of connection with Architect			
084	B	428	Reed, Sean 3/21/2022	3.30	SR RCE	874.50
			Update offsite civil plans for resubmittal to City			
084	B	428	Reed, Sean 3/22/2022	.50	SR RCE	132.50
			Update offsite civil plans and resubmit to City			
084	B	428	Reed, Sean 3/25/2022	.30	SR RCE	79.50
			Coordination with City on plans			
084	B	428	Reed, Sean 4/1/2022	1.50	SR RCE	397.50
			Review plan check comments for streets and send email to City for answers to questions			
267	F	040	Britton, Donald 8/25/2021	.30	SR L.S.	79.50
			Survey Coordination for Additional Topo required for offsite design.			
267	F	040	Britton, Donald 9/9/2021	.80	SR L.S.	212.00
			Survey Coordination for Topo Expansion with crew.			
224	F	090	Delmarter, James 8/23/2021	.50	SR RCE	132.50
			DOWNLOAD COA AND NOD			
224	F	090	Delmarter, James 8/25/2021	.50	SR RCE	132.50
			SEWER RESEARCH			
224	F	090	Delmarter, James 9/10/2021	.50	SR RCE	132.50
			ORIENTATION w/ SEAN			
273	F	150	Gann, Jeffrey 9/9/2021	9.50	2-MAN CREW	1,159.00
			topo exp, for swr/stm			
273	F	187	Ingalls, Chad 9/9/2021	9.50	2-MAN CREW	1,159.00
			topo exp. swr/stm			
273	F	370	Nistor, Mark 9/16/2021	7.25	OFFICE ENGR/LSIT	1,203.50
			Off-site Topo			
273	F	370	Nistor, Mark 9/17/2021	3.00	OFFICE ENGR/LSIT	498.00
			Off-site Topo			
273	F	370	Nistor, Mark 9/20/2021	5.75	OFFICE ENGR/LSIT	954.50
			Update Topo			
280	F	370	Nistor, Mark 1/19/2022	.50	OFFICE ENGR/LSIT	83.00
			Email/Resond - Water line location?			

Show Unposted

				Total Hours	Labor Category	JTD T&M
317	F	428 Reed, Sean	10/11/2021	2.00	SR RCE	530.00
		Prepare cost estimate for offsite work				
084	F	428 Reed, Sean	11/2/2021	1.00	SR RCE	265.00
		Offsite Design				
084	F	428 Reed, Sean	11/3/2021	3.10	SR RCE	821.50
		Offsite Design				
084	F	428 Reed, Sean	11/4/2021	2.80	SR RCE	742.00
		Offsite Design				
084	* F	428 Reed, Sean	11/4/2021	2.80	SR RCE	742.00
		Design				
084	F	428 Reed, Sean	11/5/2021	2.00	SR RCE	530.00
		Offsite Design				
084	* F	428 Reed, Sean	11/5/2021	3.20	SR RCE	848.00
		Design				
084	* F	428 Reed, Sean	11/8/2021	2.50	SR RCE	662.50
		Design				
084	F	428 Reed, Sean	11/16/2021	1.50	SR RCE	397.50
		Modify estimate for offsite improvements and send to Arch.				
084	F	428 Reed, Sean	11/18/2021	2.30	SR RCE	609.50
		Project coordination and correspondence				
084	F	428 Reed, Sean	11/22/2021	.50	SR RCE	132.50
		Project coordination and design				
084	F	428 Reed, Sean	11/23/2021	1.00	SR RCE	265.00
		Project coordination and design				
084	F	428 Reed, Sean	11/24/2021	2.25	SR RCE	596.25
		Project coordination and design				
084	F	428 Reed, Sean	11/30/2021	1.00	SR RCE	265.00
		Offsite Improvement Plans				
084	F	428 Reed, Sean	12/1/2021	1.70	SR RCE	450.50
		Offsite Improvement Plans				
084	F	428 Reed, Sean	12/2/2021	1.00	SR RCE	265.00
		Offsite Improvement Plans				
084	F	428 Reed, Sean	12/10/2021	.50	SR RCE	132.50
		Received plan check comments from City and coordinated corrections				
084	F	428 Reed, Sean	12/21/2021	1.10	SR RCE	291.50
		Correspondence regarding parking spaces that are not in compliance with City standards				
084	F	428 Reed, Sean	12/22/2021	1.90	SR RCE	503.50
		Discuss sewer comments with City and research alternate sewer alignment options				
084	F	428 Reed, Sean	12/23/2021	1.90	SR RCE	503.50
		Re-design sewer				
084	F	428 Reed, Sean	12/29/2021	1.20	SR RCE	318.00
		Coordination with City of McFarland Staff regarding plan check				
084	F	428 Reed, Sean	1/3/2022	.30	SR RCE	79.50
		Coordination for potholing of water line				
084	F	428 Reed, Sean	1/4/2022	.50	SR RCE	132.50
		Coordination for potholing of water line				
084	F	428 Reed, Sean	1/5/2022	.80	SR RCE	212.00
		Coordination for potholing of water line				
Total for Labor				**83.35**		**17,737.25**
Total for Labor				**83.35**		**17,737.25**
Expenses						
Reimbursable Expenses						
523-00 Misc Reimbursables Expense						
F	UN 00000043 9/9/2021	Mileage / 60.0 Mileage @ 0	60.0			39.00
Mileage @ 0.65						
Total for 523-00						**39.00**

Show Unposted

	Total Hours	Labor Category	JTD T&M
527-00 Field Materials			
F UN 00000043 9/9/2021 Materials:Lath,Stakes & Flagging / 2.0 LathsStake @ 0.35 2.0 LathsStake @ 0.50			1.00
Total for 527-00			**1.00**
528-00 Field Equipment			
F UN 00000043 9/9/2021 Geodimeter-4000/5600 / 8.0 Geodimeter @ 0 8.0 Geodimeter @ 44.00			352.00
Total for 528-00			**352.00**
529-00 Office Equipment			
F UN 00000067 9/16/2021 Advanced Licensing / 7.25 Computers @ 0 7.25 Computers @ 44.00			319.00
F UN 00000067 9/17/2021 Advanced Licensing / 3.0 Computers @ 0 3.0 Computers @ 44.00			132.00
F UN 00000099 9/20/2021 Advanced Licensing / 5.75 Computers @ 0 5.75 Computers @ 44.00			253.00
Total for 529-00			**704.00**
Total for Reimbursable Expenses			**1,096.00**
Total for Expenses			**1,096.00**
Total for 005	**83.35**		**18,833.25**
Total for 021-023-000	**83.35**		**18,833.25**

HIGHLIGHTED → TOTAL $ 14312.25

CITY PAY 50% → TOTAL $ 7,156.13

Final Totals	**83.35**	**18,833.25**

CITY OF McFARLAND
COUNTY OF KERN, STATE OF CALIFORNIA
OFFSITE CIVIL PLANS
TRACT NO. 4795 - LOT 28-B
221 ELMO HIGHWAY

STANDARD NOTES

1. ALL IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF McFARLAND.
2. THE FOLLOWING CITY OF McFARLAND (C.O.M.) STANDARDS SHALL BE CONSIDERED PART OF THESE PLANS: R-3, R-6, W-2, W-4A, W-5B, W-9A, W9B, S-1, S-5, S-7, S-9
3. PAVING FOR STREETS SHALL BE TYPE "B" ASPHALT CONCRETE OVER CLASS II AGGREGATE BASE. SEE STREET CROSS SECTIONS.
4. ALL MANHOLE AND LAMPHOLE FRAME AND COVERS SHALL BE SET 1/4" BELOW PAVEMENT GRADE.
5. CONCRETE CONSTRUCTION: ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF McFARLAND SUBDIVISION STANDARDS SECTION 56 AND ALL APPROPRIATE STANDARD DETAILS
6. ASPHALTIC CONCRETE CONSTRUCTION: ALL ASPHALTIC CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF McFARLAND SUBDIVISION STANDARDS SECTION 57 AND ALL APPROPRIATE STANDARD DETAILS.
7. UNDERGROUND SERVICE ALERT (USA) SHALL BE NOTIFIED AT LEAST 2 WORKING DAYS BEFORE CONSTRUCTION. TELEPHONE 811 (1-800-642-2444)
8. CONTRACTOR TO CALL FOR USA LOCATE AND POTHOLE ALL MARKED UTILITIES THAT CROSS OR ARE WITHIN 5' HORIZONTAL DISTANCE OF SEWER AND STORM DRAIN LINES. VERTICAL AND HORIZONTAL LOCATION SHALL BE ASCERTAINED BY THE CONTRACTOR AHEAD OF ANY EXCAVATIONS TO VERIFY THAT THE PROPOSED DESIGN DOES NOT CONFLICT WITH ANY UTILITIES. IN THE EVENT A CONFLICT EXISTS THE ENGINEER SHALL BE NOTIFIED IN ORDER TO REDESIGN THE ALIGNMENT. IF RELOCATION OF EXISTING UTILITIES IS DEEMED NECESSARY THE CONTRACTOR SHALL BE COMPENSATED FOR INSTRUCTED RELOCATION. IF REDESIGN OF THE ALIGNMENT REQUIRES ADDITIONAL FITTINGS, PIPE OR EXCAVATION THE CONTRACTOR SHALL BE COMPENSATED FOR REVISION. IN THE EVENT A UTILITY IS DAMAGED THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ITS REPAIR.
9. CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF EXISTING SEWER AND STORM DRAIN LINES THAT NEW SYSTEM TIES INTO PRIOR TO INSTALLATION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER SO THAT ANY NECESSARY ADJUSTMENTS MAY BE MADE. UTILITIES SHALL BE THOROUGHLY RESEARCHED AND LOCATED BY CONTRACTOR PRIOR TO TRENCHING. CROSSING UTILITIES SHALL BE DAYLIGHTED AND CHECKED FOR GRADE BY CONTRACTOR PRIOR TO TRENCHING.
10. SEE SOILS REPORT PREPARED BY SOILS ENGINEERING, INC., SEI FILE NO. 21-18050 DATED JULY 15, 2021.

GENERAL IMPROVEMENT NOTES:

1. ALL REINFORCED CONCRETE PIPE SHALL BE CLASS III PER ASTM SPECIFICATION C-78, EXCEPT AS NOTED ON PLANS.
2. IF, DURING GRADING OR CONSTRUCTION ACTIVITIES, ANY PLUGGED, ABANDONED, OR UNRECORDED WELLS ARE UNCOVERED OR DAMAGED, REMEDIAL PLUGGING OPERATIONS MAY BE REQUIRED. THE DEPARTMENT OF CONSERVATION/DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES (DOGGR) SHALL BE CONTACTED TO OBTAIN INFORMATION ON THE REQUIREMENTS FOR AND APPROVAL TO PERFORM REMEDIAL OPERATIONS.
3. BACKFILL REQUIREMENTS SHALL BE IN ACCORDANCE WITH SOILS REPORT.
4. THE STORM DRAIN SYSTEM WITHIN THE RIGHT-OF-WAY OR INTENDED FOR PUBLIC SHALL BE CLASS III REINFORCED CONCRETE PIPE WITH RUBBER GASKET JOINTS, CAST IN PLACE CONCRETE PIPE OR PLASTIC PIPE TYPE C OR TYPE S UNLESS APPROVED OR REQUIRED BY THE DIRECTOR.
5. NOT ALL UNDERGROUND UTILITIES OR FACILITIES WERE LOCATED BY THIS SURVEY AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UNDERGROUND UTILITIES OR FACILITIES NOT SHOWN OR FROM INFORMATION DERIVED FROM PUBLIC UTILITIES.
6. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK IN THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
7. CONTRACTOR SHALL NOT DEVIATE FROM OR MAKE CHANGES TO THESE PLANS WITHOUT THE WRITTEN AUTHORIZATION OF McINTOSH & ASSOCAITES.
8. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS BEFORE START OF CONSTRUCTION.
9. IF A PROBLEM SHOULD ARISE DURING THE COURSE OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY PRIOR TO ANY FURTHER WORK.
10. THE LOCATIONS OF EXISTING UTILITIES AND UNDERGROUND PIPELINES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND UNDERGROUND PIPELINES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE BY HIS FAILURE TO EXACTLY LOCATE, PRESERVE AND PROTECT ANY AND ALL UNDERGROUND UTILITIES MAD PIPELINES. THE THE CONTRACTOR SHALL CALL U.S.A. (UNDERGROUND SERVICE ALERT) 1-800-227-2600.
11. SHOULD ANY CULTURAL MATERIALS BE DISCOVERED DURING ANY GRADING OR DEVELOPMENT, ALL WORK SHALL BE HALTED AND A QUALIFIED ARCHAEOLOGIST/HISTORIAN SHALL BE CONTACTED TO ASSESS THE FINDS AND IMPOSE MITIGATION MEASURES, IF NECESSARY, PRIOR TO THE RESUMPTION OF CONSTRUCTION.
12. IF HUMAN REMAINS ARE DISCOVERED AT ANY TIME ON THIS PROPERTY, WORK MUST HALT IN THE AREA OF THE FIND, AND THE KERN COUNTY CORONER SHALL BE NOTIFIED IMMEDIATELY (HEALTH AND SAFETY CODE SECTION 7050.5).
13. IF ANY ABANDONED WATER WELLS ARE LOCATED WITHIN THE DEVELOPMENT OR DISCOVERED DURING EXCAVATION OR GRADING, THE KERN COUNTY PUBLIC HEALTH SERVICES DEPARTMENT/ ENVIRONMENTAL HEALTH DIVISION MUST BE CONTACTED TO OBTAIN INFORMATION FOR THE PROPER PERMITTING AND DESTRUCTION PROCEDURES.
14. DURING GRADING OPERATIONS, ALL ACTIVITY SHALL BE RESTRICTED TO PERIODS OF LOW WND TO REDUCE DUST EMISSIONS. VERIFICATION OF COMPLIANCE WITH THIS MITIGATION MEASURE WILL BE THE RESPONSIBILITY OF THE KERN COUNTY PUBLIC WORKS DEPARTMENT/BUILDING INSPECTION DIVISION.

NOTES:

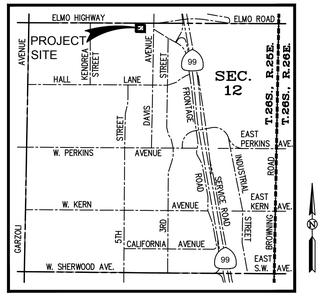
NOT ALL UNDERGROUND UTILITIES OR FACILITIES WERE LOCATED BY THIS SURVEY AND THE SURVEYOR ASSUMES NO RESPONSIBILITY FOR UNDERGROUND UTILITIES NOT SHOWN OR FOR INFORMATION DERIVED FROM ANY OUTSIDE SOURCES.

AT&T UNDERGROUND LINES ARE NOT SHOWN SINCE MAPS WERE NOT PROVIDED.

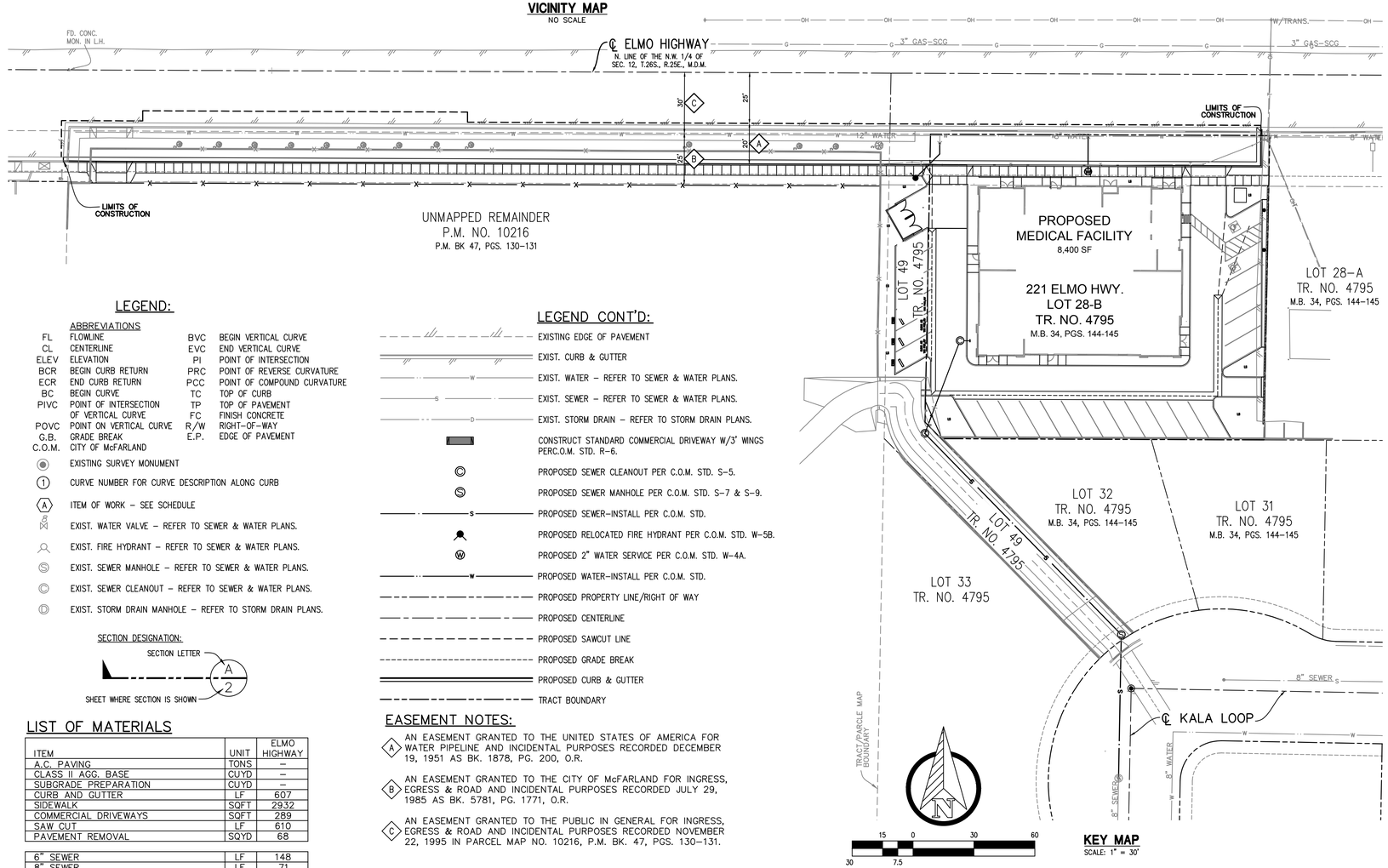
ALL EASEMENT INFORMATION SHOWN HEREON IS BASED ON FIRST AMERICAN TITLE PRELIMINARY TITLE REPORT NO. 1503-6572400 DATED APRIL 21, 2021.

1. AN EASEMENT IN FAVOR OF THE UNITED STATES OF AMERICA FOR INCIDENTAL PURPOSES RECORDED AUGUST 4, 1892 IN BOOK 5 OF PATENTS, PAGE 281. (THE EXACT LOCATION IS NOT ASCERTAINABLE FROM RECORD)
2. AN EASEMENT IN FAVOR OF MT. WHITNEY POWER AND ELECTRIC COMPANY FOR INCIDENTAL PURPOSES RECORDED MAY 22, 1912 IN BOOK 29, PAGE 367 OF OFFICIAL RECORDS. (THE EXACT LOCATION IS NOT ASCERTAINABLE FROM RECORD)

NOTE:
1. PRIOR TO THE START OF ANY PHASE OF CONSTRUCTION, THE CITY CONSTRUCTION INSPECTION DEPARTMENT SHALL BE GIVEN 48 HOURS NOTICE. TELEPHONE 792-3091
2. FIRST COMPACTION TEST WILL BE THE OWNER'S RESPONSIBILITY. NUMBER AND LOCATION OF THE TESTS TO BE DETERMINED BY THE CITY ENGINEER, ALL RETESTS THEREAFTER ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL MATERIALS SUPPLIED FOR THIS PROJECT WILL REQUIRE A CERTIFICATE OF COMPLIANCE STATING THAT THE REQUIREMENTS & STANDARDS AS SET FORTH BY THE CITY OF DELANO HAVE BEEN MET, SPECS SHALL BE PROVIDED PRIOR TO START OF CONSTRUCTION.



VICINITY MAP
NO SCALE



KEY MAP
SCALE: 1" = 30'

LEGEND:

ABBREVIATIONS

FL	FLOWLINE	BVC	BEGIN VERTICAL CURVE
CL	CENTERLINE	EVC	END VERTICAL CURVE
ELEV	ELEVATION	PI	POINT OF INTERSECTION
BCR	BEGIN CURB RETURN	PRC	POINT OF REVERSE CURVATURE
ECR	END CURB RETURN	PCC	POINT OF COMPOUND CURVATURE
BC	BEGIN CURVE	TC	TOP OF CURB
PIVC	POINT OF INTERSECTION OF VERTICAL CURVE	TP	TOP OF PAVEMENT
		FC	FINISH CONCRETE
POVC	POINT ON VERTICAL CURVE	R/W	RIGHT-OF-WAY
G.B.	GRADE BREAK	E.P.	EDGE OF PAVEMENT
C.O.M.	CITY OF McFARLAND		

- EXISTING SURVEY MONUMENT
- (1) CURVE NUMBER FOR CURVE DESCRIPTION ALONG CURB
- (A) ITEM OF WORK - SEE SCHEDULE
- EXIST. WATER VALVE - REFER TO SEWER & WATER PLANS.
- EXIST. FIRE HYDRANT - REFER TO SEWER & WATER PLANS.
- EXIST. SEWER MANHOLE - REFER TO SEWER & WATER PLANS.
- EXIST. SEWER CLEANOUT - REFER TO SEWER & WATER PLANS.
- EXIST. STORM DRAIN MANHOLE - REFER TO STORM DRAIN PLANS.

SECTION DESIGNATION:
SECTION LETTER A
SHEET WHERE SECTION IS SHOWN 2

LEGEND CONT'D:

- EXISTING EDGE OF PAVEMENT
- EXIST. CURB & GUTTER
- W — EXIST. WATER - REFER TO SEWER & WATER PLANS.
- S — EXIST. SEWER - REFER TO SEWER & WATER PLANS.
- D — EXIST. STORM DRAIN - REFER TO STORM DRAIN PLANS.
- CONSTRUCT STANDARD COMMERCIAL DRIVEWAY W/3' WINGS PERC.O.M. STD. R-6.
- PROPOSED SEWER CLEANOUT PER C.O.M. STD. S-5.
- PROPOSED SEWER MANHOLE PER C.O.M. STD. S-7 & S-9.
- S — PROPOSED SEWER-INSTALL PER C.O.M. STD.
- PROPOSED RELOCATED FIRE HYDRANT PER C.O.M. STD. W-5B.
- PROPOSED 2" WATER SERVICE PER C.O.M. STD. W-4A.
- W — PROPOSED WATER-INSTALL PER C.O.M. STD.
- PROPOSED PROPERTY LINE/RIGHT OF WAY
- PROPOSED CENTERLINE
- PROPOSED SAWCUT LINE
- PROPOSED GRADE BREAK
- PROPOSED CURB & GUTTER
- TRACT BOUNDARY

EASEMENT NOTES:

(A) AN EASEMENT GRANTED TO THE UNITED STATES OF AMERICA FOR WATER PIPELINE AND INCIDENTAL PURPOSES RECORDED DECEMBER 19, 1951 AS BK. 1878, PG. 200, O.R.

(B) AN EASEMENT GRANTED TO THE CITY OF McFARLAND FOR INGRESS, EGRESS & ROAD AND INCIDENTAL PURPOSES RECORDED JULY 29, 1985 AS BK. 5781, PG. 1771, O.R.

(C) AN EASEMENT GRANTED TO THE PUBLIC IN GENERAL FOR INGRESS, EGRESS & ROAD AND INCIDENTAL PURPOSES RECORDED NOVEMBER 22, 1995 IN PARCEL MAP NO. 10216, P.M. BK. 47, PGS. 130-131.

LIST OF MATERIALS

ITEM	UNIT	ELMO HIGHWAY
A.C. PAVING	TONS	--
CLASS II AGG. BASE	CUYD	--
SUBGRADE PREPARATION	CUYD	--
CURB AND GUTTER	LF	607
SIDEWALK	SQFT	2932
COMMERCIAL DRIVEWAYS	SQFT	289
SAW CUT	LF	610
PAVEMENT REMOVAL	SQYD	68

6" SEWER	LF	148
8" SEWER	LF	71
SEWER CLEANOUT	EA	1
SEWER MANHOLE	EA	1
2" WATER	LF	17
6" WATER	LF	22
FIRE HYDRANT (RELOCATED)	EA	1
2" WATER SERVICE	EA	1
45° ELBOW	EA	1

OWNER:
SHAFTER MEDICAL PLAZA, LLC
P.O. BOX 22694
BAKERSFIELD, CA 93390
TEL. NO.: (661) 364-5244
CONTACT PERSON: DR. AYODEJI AYENI

ENGINEER:
McINTOSH & ASSOCIATES
2001 WHEELAN COURT
BAKERSFIELD, CA 93309
TEL. NO.: (661) 834-4814
CONTACT PERSON: SEAN E. REED

BENCHMARK:
NGS DESIGNATION: HPGN D CA 06 GK

THE STATION IS LOCATED AT THE ELMO HIGHWAY OVERCROSSING OF STATE HIGHWAY 99 IN McFARLAND, ABOUT 25 MI (40.2 KM) NORTHWEST OF BAKERSFIELD AND 5 MI (8.0 KM) SOUTH OF DELANO. TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 46 AND 99, ABOUT 11 MI (17.7 KM) SOUTH OF DELANO, GO NORTH ON HIGHWAY 99 FOR 5.4 MI (8.7 KM) TO THE PERKINS AVENUE/ELMO HIGHWAY OFF-RAMP. TAKE THE OFF-RAMP NORTH FOR 0.25 MI (0.40 KM) TO THE INTERSECTION WITH PERKINS AVENUE. TURN LEFT AND GO WEST THEN SOUTH ON PERKINS AVENUE FOR 0.1 MI (0.2 KM) TO A T-INTERSECTION. BEAR RIGHT AND GO WEST ON PERKINS AVENUE FOR 0.1 MI (0.2 KM) TO A SIDE ROAD RIGHT, DAVIS AVENUE. TURN RIGHT AND GO NORTH ON DAVIS AVENUE FOR 0.5 MI (0.8 KM) TO THE INTERSECTION WITH ELMO HIGHWAY. TURN RIGHT AND GO EAST ON ELMO HIGHWAY, CROSSING OVER HIGHWAY 99, FOR 0.2 MI (0.3 KM) TO THE EAST END OF THE ELMO HIGHWAY OVERCROSSING AND THE STATION ON THE RIGHT. THE STATION IS SET FLUSH IN THE SIDEWALK ON THE SOUTH SIDE OF THE EAST ABUTMENT OF THE OVERCROSSING, ABOUT 275 FT (83.8 M) EAST OF THE CENTERLINE OF HIGHWAY 99, 20.0 FT (6.1 M) SOUTH OF THE CENTERLINE OF ELMO HIGHWAY, 16.8 FT (5.1 M) WEST OF THE EAST END OF THE CONCRETE SIDEWALK, 3.4 FT (1.0 M) NORTH OF THE SOUTH EDGE OF THE ABUTMENT AND 0.7 FT (0.2 M) WEST OF THE EAST EDGE OF THE ABUTMENT.

ELEVATION = 374.40 FEET (NAVD 88 DATUM)

BASIS OF BEARINGS:
THE BEARING OF N 89°46'24" W SHOWN FOR THE CENTERLINE OF ELMO HIGHWAY AND THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 12, T.26S., R.25E., M.D.M PER TRACT NO. 4795, MAP BOOK 34, PAGES 144-145 WAS USED AS THE BASIS OF BEARINGS SHOWN HEREON.

SHEET INDEX:

C1 COVER SHEET
C2 STREET PLAN
C3 SEWER & WATER PLAN

811 Know what's below. Call before you dig.

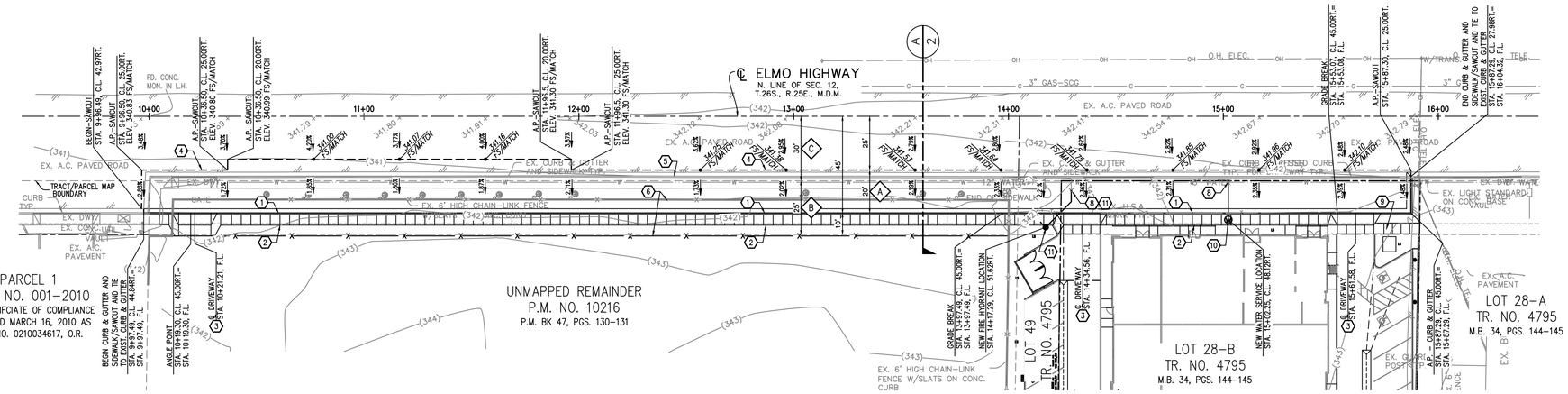
McINTOSH & ASSOCIATES
LAND SURVEYING • CIVIL ENGINEERING © 2021
2001 WHEELAN COURT
BAKERSFIELD, CALIFORNIA 93309
(661) 834 - 4814
JOB NO. 21-023
DATE: 12/2/21
DRAWN BY: EBT
CHECKED FOR:

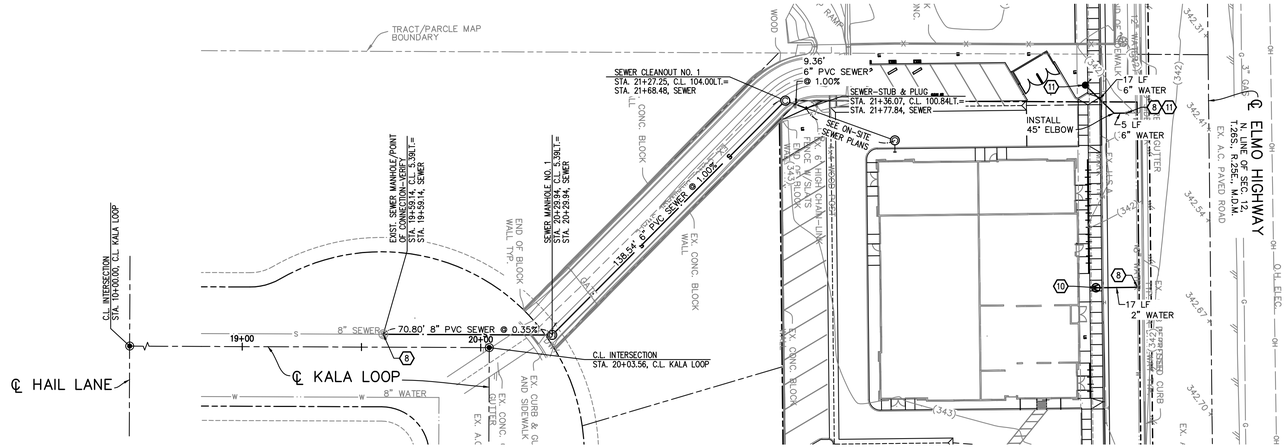
REGISTERED PROFESSIONAL ENGINEER SEAN E. REED No. 64620 CIVIL STATE OF CALIFORNIA
1st Check
DATE

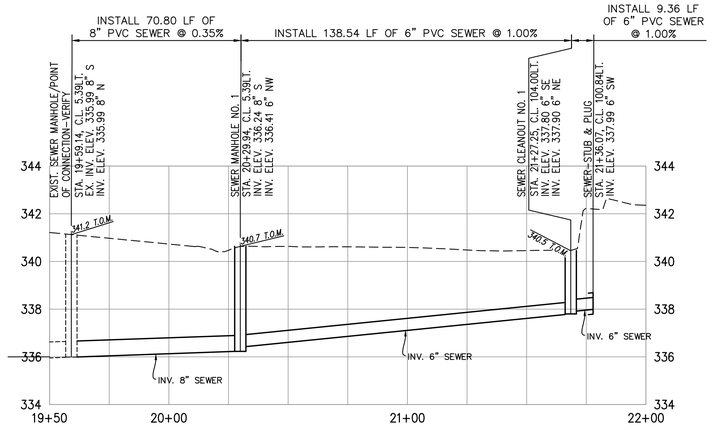
REVISIONS
BY
DATE

SHAFTER MEDICAL PLAZA, LLC
221 ELMO HIGHWAY, McFARLAND, CA - TR. NO. 4795-LOT 28-B
OFFSITE CIVIL PLANS
COVER SHEET
AutoCAD FILE: 21023T02

SHEET 1 OF 3 SHEETS


℄ ELMO HIGHWAY
N. LINE OF SEC. 12, T.26S., R.25E., M.D.M.
PARCEL 1
L.L.A. NO. 001-2010
PER CERTIFICIATE OF COMPLIANCE RECORDED MARCH 16, 2010 AS DOC. NO. 0210034617, O.R.
UNMAPPED REMAINDER
P.M. NO. 10216
P.M. BK 47, PGS. 130-131
LOT 49
TR. NO. 4795
LOT 28-B
TR. NO. 4795
M.B. 34, PGS. 144-145
LOT 28-A
TR. NO. 4795
M.B. 34, PGS. 144-145
EX. A.C. PAVED ROAD
EX. 6' HIGH CHAIN-LINK FENCE
EX. 6' HIGH CHAIN-LINK FENCE W/SLATS ON CONC. CURB
EX. CURB & GUTTER AND SIDEWALK
EX. CURB & GUTTER
EX. A.C. PAVEMENT
TRACT/PARCEL MAP BOUNDARY
BEGIN-SAWCUT STA. 9+96.49, CL. 42.97RT.
FD. CONC. MON. IN L.H.
A.P.-SAWCUT STA. 9+96.50, CL. 25.00RT. ELEV. 340.83 FS/MATCH
A.P.-SAWCUT STA. 10+26.50, CL. 20.00RT. ELEV. 340.99 FS/MATCH
A.P.-SAWCUT STA. 13+96.53, CL. 20.00RT. ELEV. 341.83 FS/MATCH
A.P.-SAWCUT STA. 14+26.65, CL. 25.00RT. ELEV. 341.30 FS/MATCH
GRADE BREAK STA. 15+53.07, CL. 45.00RT.= STA. 15+53.08, F.L.
A.P.-SAWCUT STA. 15+97.30, CL. 25.00RT.
END CURB & GUTTER AND SIDEWALK/SAWCUT AND TIE TO EXIST. CURB & GUTTER STA. 16+04.32, F.L.
BEGIN CURB & GUTTER AND SIDEWALK/SAWCUT AND TIE TO EXIST. CURB & GUTTER STA. 9+97.49, F.L.
ANGLE POINT STA. 10+18.30, CL. 45.00RT.=
& DRIVEWAY STA. 10+21.21, F.L.
GRADE BREAK STA. 13+53.08, CL. 45.00RT.= STA. 13+97.49, F.L.
NEW FIRE HYDRANT LOCATION STA. 14+17.29, CL. 51.62RT.
& DRIVEWAY STA. 14+34.56, F.L.
NEW WATER SERVICE LOCATION STA. 15+02.25, CL. 48.12RT.
& DRIVEWAY STA. 15+61.58, F.L.
A.P.-CURB & GUTTER STA. 15+87.29, CL. 27.00RT.=
EX. BUILDING
EX. LIGHT STANDARD ON CONC. BASE
EX. GUARD POST
EX. BIKE RACK
EX. CURB & GUTTER
EX. CURB TRANSITION
EX. CURB & GUTTER TRANSITION
EX. CURB & GUTTER TRANSITION
EX. CURB & GUTTER







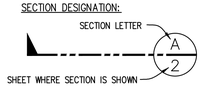
LEGEND:

ABBREVIATIONS

FL	FLOWLINE	BVC	BEGIN VERTICAL CURVE
CL	CENTERLINE	EVC	END VERTICAL CURVE
ELEV	ELEVATION	PI	POINT OF INTERSECTION
BCR	BEGIN CURB RETURN	PRC	POINT OF REVERSE CURVATURE
ECR	END CURB RETURN	PCC	POINT OF COMPOUND CURVATURE
BC	BEGIN CURVE	TC	TOP OF CURB
PIVC	POINT OF INTERSECTION OF VERTICAL CURVE	TP	TOP OF PAVEMENT
		FC	FINISH CONCRETE
POVC	POINT ON VERTICAL CURVE	R/W	RIGHT-OF-WAY
G.B.	GRADE BREAK	E.P.	EDGE OF PAVEMENT
C.O.M.	CITY OF McFARLAND		

- ◉ EXISTING SURVEY MONUMENT
- (1) CURVE NUMBER FOR CURVE DESCRIPTION ALONG CURB
- ⟨A⟩ ITEM OF WORK – SEE SCHEDULE
- EXIST. WATER VALVE – REFER TO SEWER & WATER PLANS.
- EXIST. FIRE HYDRANT – REFER TO SEWER & WATER PLANS.
- Ⓢ EXIST. SEWER MANHOLE – REFER TO SEWER & WATER PLANS.
- © EXIST. SEWER CLEANOUT – REFER TO SEWER & WATER PLANS.
- Ⓓ EXIST. STORM DRAIN MANHOLE – REFER TO STORM DRAIN PLANS.

SECTION DESIGNATION:



LEGEND CONT'D:

- EXISTING EDGE OF PAVEMENT
- EXIST. CURB & GUTTER
- EXIST. WATER – REFER TO SEWER & WATER PLANS.
- EXIST. SEWER – REFER TO SEWER & WATER PLANS.
- EXIST. STORM DRAIN – REFER TO STORM DRAIN PLANS.
- CONSTRUCT STANDARD COMMERCIAL DRIVEWAY W/3' WINGS PERC.O.M. STD. R–6.
- © PROPOSED SEWER CLEANOUT PER C.O.M. STD. S–5.
- Ⓢ PROPOSED SEWER MANHOLE PER C.O.M. STD. S–7 & S–9.
- PROPOSED SEWER–INSTALL PER C.O.M. STD.
- PROPOSED RELOCATED FIRE HYDRANT PER C.O.M. STD. W–5B.
- Ⓦ PROPOSED 2" WATER SERVICE PER C.O.M. STD. W–4A.
- PROPOSED WATER–INSTALL PER C.O.M. STD.
- PROPOSED PROPERTY LINE/RIGHT OF WAY
- PROPOSED CENTERLINE
- PROPOSED SAWCUT LINE
- PROPOSED GRADE BREAK
- PROPOSED CURB & GUTTER
- TRACT BOUNDARY

EASEMENT NOTES:

⟨A⟩ AN EASEMENT GRANTED TO THE UNITED STATES OF AMERICA FOR WATER PIPELINE AND INCIDENTAL PURPOSES RECORDED DECEMBER 19, 1951 AS BK. 1878, PG. 200, O.R.

⟨B⟩ AN EASEMENT GRANTED TO THE CITY OF McFARLAND FOR INGRESS, EGRESS & ROAD AND INCIDENTAL PURPOSES RECORDED JULY 29, 1985 AS BK. 5781, PG. 1771, O.R.

⟨C⟩ AN EASEMENT GRANTED TO THE PUBLIC IN GENERAL FOR INGRESS, EGRESS & ROAD AND INCIDENTAL PURPOSES RECORDED NOVEMBER 22, 1995 IN PARCEL MAP NO. 10216, P.M. BK. 47, PGS. 130–131.

CONSTRUCTION NOTES:

1. CONSTRUCT CURB & GUTTER PER C.O.M. STD. R–3.
2. CONSTRUCT 5' COMBINATION SIDEWALK PER C.O.M. STD. R–3.
3. CONSTRUCT STANDARD COMMERCIAL DRIVEWAY PER C.O.M. STD. R–6
4. SAWCUT EXISTING PAVEMENT PER PLAN OR AS DIRECTED BY CITY ENGINEER
5. DEMO EXISTING CURB & GUTTER AND SIDEWALK
6. REMOVE AND REINSTALL EXISTING CHAINLINK FENCE
7. EXISTING SIGN TO BE RELOCATED.
8. CONTRACTOR TO VERIFY LOCATION AND INVERT ELEVATION OF EXISTING UTILITY LINE BEFORE CONSTRUCTION & NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
9. TRANSITION NEW COMBINATION SIDEWALK TO A 5' DETACHED SIDEWALK AND MATCH EXISTING AT END.
10. FURNISH AND INSTALL 2" WATER SERVICE PER C.O.M. STD. W–4A
11. RELOCATE (E) FIRE HYDRANT PER C.O.M. STD. W–5B.

Know what's **below.**
Call before you dig.

McINTOSH & ASSOCIATES
LAND SURVEYING • CIVIL ENGINEERING
2001 WHEELAN COURT
BAKERSFIELD, CALIFORNIA 93309
(661) 834 – 4814
© 2021

DRAWN BY: EBT
JOB NO. 21-023
DATE: 12/2/21
DESIGNED FOR:

REGISTERED PROFESSIONAL ENGINEER
JEFFREY T. REED
No. C 74620
CIVIL
STATE OF CALIFORNIA
1st Check
DATE:

REVISIONS
BY
DATE

AYODEJI AYENI
CITY OF McFARLAND, COUNTY OF KERN, STATE OF CALIFORNIA
TRACT NO. 4795 - LOT 28-B
OFF-SITE SEWER & WATER PLAN
AutoCAD FILE: 21023102

SHEET 3 OF 3 SHEETS

EXHIBIT "C"

FORMS FOR SECURITY

[ATTACHED BEHIND THIS PAGE]

BOND NO. CAC721216
INITIAL PREMIUM: $6,352.00
SUBJECT TO RENEWAL

PERFORMANCE BOND

WHEREAS, the City of McFarland ("CITY") has executed an agreement with Shafter Medical Plaza, LLC (hereinafter "Developer"), requiring Developer to perform certain work consisting of but not limited to, furnishing all labor, materials, tools, equipment, services, and incidentals for the construction of street and transportation system improvements (hereinafter the "Work");

WHEREAS, the Work to be performed by Developer is more particularly set forth in that certain DIF Credit Agreement dated _____, (hereinafter the "Agreement"); and

WHEREAS, the Agreement is hereby referred to and incorporated herein by this reference; and

WHEREAS, Developer or its contractor is required by the Agreement to provide a good and sufficient bond for performance of the Agreement, and to guarantee and warranty the Work constructed thereunder.

NOW, THEREFORE, we the undersigned, Shafter Medical Plaza, LLC, as Principal and, Merchants Bonding Company (Mutual)_____, a corporation/limited liability company organized and existing under the laws of the State of Iowa and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the CITY in the sum of Two Hundred Ninety Two Thousand Six Hundred Four and 94/100--- ($ 292,604.94), said sum being not less than one hundred percent (100%) of the total cost of the Work as set forth in the Agreement, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such, that if Developer and its contractors, or their heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, agreements, guarantees, and warranties in the Agreement and any alteration thereof made as therein provided, to be kept and performed at the time and in the manner therein specified and in all respects according to their intent and meaning, and to indemnify and save harmless CITY, its officers, employees, and agents, as stipulated in the Agreement, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As part of the obligation secured hereby, and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees, incurred by CITY in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

The said Surety, for value received, hereby stipulates and agrees that no change, extension

of time, alteration or additions to the terms of the said Agreement or to the Work to be performed thereunder or the specification accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or to the Work.

IN WITNESS WHEREOF, we have hereto set our hands and seals this 15th day on March, 2022.

Shafter Medical Plaza, LLC
Principal

By: _____
President/Managing Member

Merchants Bonding Company (Mutual)
Surety

By: Kathleen Earle
Kathleen Earle, Attorney-in-Fact

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Contra Costa)

On MAR 15 2022 before me, Anibal Samuel Campos, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared Kathleen Earle
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

ANIBAL SAMUEL CAMPOS
Notary Public - California
San Mateo County
Commission # 2390602
My Comm. Expires Feb 9, 2026

Signature _____
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: _____ Document Date: _____
Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____	Signer's Name: _____
☐ Corporate Officer — Title(s): _____	☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General
☐ Individual ☒ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer is Representing: _____	Signer is Representing: _____

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MERCHANTS
BONDING COMPANY

POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,

Anibal Samuel Campos; Benjamin L Wolfe; Chelsea Arnold; Doreen A Green; Kathleen Earle; Steven N Passerine

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015.

"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and aut hority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 23rd day of April , 2020 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) -o- 1933

MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

By Larry Taylor
President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this 23rd day of April 2020 , before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies, and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.

NOTARIAL SEAL IOWA

POLLY MASON
Commission Number 750576
My Commission Expires
January 07, 2023

Polly Mason
Notary Public

(Expiration of notary's commission does not invalidate this instrument)

I, William Warner, Jr., Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 15th day of March , 2022 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) -o- 1933

William Warner Jr.
Secretary

POA 0018 (1/20)

BOND NO. CAC721216

INITIAL PREMIUM: Included in Performance Bond

SUBJECT TO RENEWAL

LABOR & MATERIAL BOND

WHEREAS, the City of McFarland ("CITY") has executed an agreement with Shafter Medical Plaza LLC (hereinafter "Developer"), requiring Developer to perform certain work consisting of but not limited to, furnishing all labor, materials, tools, equipment, services, and incidentals for the construction of street and transportation system improvements (hereinafter "Work");

WHEREAS, the Work to be performed by Developer is more particularly set forth in that certain DIF Credit Agreement dated _____, (hereinafter the "Agreement"); and

WHEREAS, Developer or its contractor is required to furnish a bond in connection with the Agreement providing that if Developer or any of his or its contractors shall fail to pay for any materials, provisions, or other supplies, or terms used in, upon, for or about the performance of the Work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the provisions of 3248 of the California Civil Code, with respect to such work or labor, that the Surety on this bond will pay the same together with a reasonable attorney's fee in case suit is brought on the bond.

NOW, THEREFORE, we the undersigned, Shafter Medical Plaza, LLC, as Principal and Merchants Bonding Company (Mutual), a corporation organized and existing under the laws of the State of Iowa and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the CITY and to any and all material men, persons, companies or corporations furnishing materials, provisions, and other supplies used in, upon, for or about the performance of the said Work, and all persons, companies or corporations renting or hiring teams, or implements or machinery, for or contributing to said Work to be done, and all persons performing work or labor upon the same and all persons supplying both work and materials as aforesaid, the sum of Two Hundred Ninety Two Thousand Six Hundred Four and 94/100---- ($292,604.94), said sum being not less than 100% of the total amount payable by Developer under the terms of the Agreement, for which payment well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns jo0intly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if Developer or its contractors, or their heirs, executors, administrators, successors, or assigns, shall fail to pay for any materials, provisions, or other supplies or machinery used in, upon, for or about the performance of the Work contracted to be done, or for work or labor thereon of any kind, or fail to pay any of the persons named in California Civil Code Section 9100, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or for any amounts required

to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work and labor, and all other applicable laws of the State of California and rules and regulations of its agencies, then said Surety will pay the same in or to an amount not exceeding the sum specified herein.

In case legal action is required to enforce the provisions of this bond, the prevailing party shall be entitled to recover reasonable attorneys' fees in addition to court costs, necessary disbursements and other consequential damages. In addition to the provisions hereinabove, it is agreed that this bond will inure to the benefit of any and all persons, companies and corporations entitled to make claims under Sections 8024, 8400, 8402, 8404, 8430, 9100 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

The said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or additions to the terms of the Agreement or to the Work to be performed thereunder or the specification accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or to the Work.

Shafter Medical Plaza, LLC
Principal

By: _____
President/Managing Member

Merchants Bonding Company (Mutual)
Surety

By: Kathleen Earle
Kathleen Earle, Attorney-in-Fact

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Contra Costa)

On MAR 15 2022 before me, Anibal Samuel Campos, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared Kathleen Earle
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

ANIBAL SAMUEL CAMPOS
Notary Public - California
San Mateo County
Commission # 2390602
My Comm. Expires Feb 9, 2026

Signature _____
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: _____ Document Date: _____
Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____	Signer's Name: _____
☐ Corporate Officer — Title(s): _____	☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General
☐ Individual ☒ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer is Representing: _____	Signer is Representing: _____

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MERCHANTS
BONDING COMPANY

POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,

Anibal Samuel Campos; Benjamin L Wolfe; Chelsea Arnold; Doreen A Green; Kathleen Earle; Steven N Passerine

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015.

"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 23rd day of April , 2020 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) -o- 1933

MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

By Larry Taylor
President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this 23rd day of April 2020 , before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.

NOTARIAL SEAL IOWA

POLLY MASON
Commission Number 750576
My Commission Expires
January 07, 2023

Polly Mason
Notary Public

(Expiration of notary's commission does not invalidate this instrument)

I, William Warner, Jr., Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 15th day of March , 2022 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) -o- 1933

William Warner Jr.
Secretary

POA 0018 (1/20)

EXHIBIT "D"

DOCUMENTATION TO BE PROVIDED TO CITY BY DEVELOPER FOR DETERMINATION OF CONSTRUCTION COSTS

To assist CITY in determining the Construction Costs for a completed DIF Improvement, Developer shall provide the following documents to CITY:

1. Plans, specifications and Developer's civil engineer's cost estimate;

2. List of bidders from whom bids were requested;

3. Construction schedules and progress reports;

4. Contracts, insurance certificates and change orders with each contractor or vendor;

5. Invoices received from all vendors;

6. Canceled checks for payments made to contractors and vendors (copy both front and back of canceled checks);

7. Spreadsheet showing total costs incurred in and related to the construction of each DIF Improvement and the check number for each item of cost and invoice;

8. Final lien releases from each contractor and vendor; and

9. Such further documentation as may be reasonably required by CITY to evidence the completion of construction and the payment of each item of cost and invoice.

EXHIBIT "E" REIMBURSEMENT AGREEMENT

THIS REIMBURSEMENT AGREEMENT ("Agreement") is entered into this___ day of _____, 20_, by and between the City of McFarland, a California municipal corporation ("CITY"), and Shafter Medical Plaza LLC, a California partnership, ("Developer"). CITY and Developer are sometimes hereinafter referred to individually as "Party" and collectively as "Parties".

RECITALS

WHEREAS, CITY and Developer are parties to an agreement dated_____, 20_, entitled "DIF Credit Agreement" (hereinafter "Credit Agreement");

WHEREAS, Sections 14(a) through 14(d) of the Credit Agreement provide that Developer is obligated to pay CITY the DIF Obligation, as defined therein, but shall receive credit to offset the DIF Obligation if Developer constructs and CITY accepts the DIF Improvements in accordance with the Credit Agreement;

WHEREAS, Section 14(e) of the Credit Agreement provides that if the dollar amount of the DIF credit to which Developer is entitled under the Credit Agreement exceeds the dollar amount of the DIF Obligation, Developer may apply to CITY for a reimbursement agreement for the amount by which the DIF credit exceeds the DIF Obligation;

WHEREAS, Section 14(e) additionally provides that a reimbursement agreement executed pursuant to the Credit Agreement (i) shall be executed on the form attached to the Credit Agreement, (ii) shall contain the terms and conditions set forth therein, (iii) shall be subject to all terms and conditions of the Credit Agreement, and (iv) shall be attached upon execution to the Credit Agreement and incorporated therein as a material part of the Credit Agreement as though fully set forth therein.

NOW, THEREFORE, for the purposes set forth herein, and for good and valuable consideration, the adequacy of which is hereby acknowledged, the Parties hereby agree as follows:

TERMS

1. Incorporation of Recitals. The Parties hereby affirm the facts set forth in the Recitals above and agree to the incorporation of the Recitals as though fully set forth herein.

2. Effectiveness. This Agreement shall not be effective unless and until the Credit Agreement is effective and in full force in accordance with its terms.

3. Definitions. Terms not otherwise expressly defined in this Agreement, shall have the meaning and intent set forth in the Credit Agreement.

4. Amount of DIF Reimbursement. Subject to the terms, conditions, and limitations set forth in this Agreement, the Parties hereby agree that Developer is entitled to receive the dollar amount by which the Actual DIF Credit exceeds the dollar amount of the DIF Obligation as determined pursuant to the Credit Agreement, section 3.44.080 of the Wildomar

Municipal Code, and the CITY's adopted Development Impact Fee Credit and Reimbursement Policy ("DIF Reimbursement"). The DIF Reimbursement shall be subject to verification by CITY and Developer shall provide any and all documentation reasonably necessary for CITY to verify the amount of the DIF Reimbursement. The DIF Reimbursement shall be in an amount not exceeding Eighty Five Thousand Four Hundred Thirty Nine and Thirty Nine Cents ($85,439.39) ("DIF Reimbursement Amount"). In no event shall the dollar amount of the DIF Reimbursement exceed the difference between the dollar amount of all credit applied to offset the DIF Obligation pursuant to Sections 15(b), 15(c), and 15(d) of the Credit Agreement, and one hundred (100%) of the construction costs of the DIF Improvement identified in the DIF Study in effect at the time of the issuance of a building permit for the Project.

5. Payment of DIF Reimbursement; Funding Contingency. The payment of the DIF Reimbursement Amount shall be subject to the following conditions:

    a. Developer shall have no right to receive payment of the DIF Reimbursement unless and until (i) the DIF Improvements are completed and accepted by CITY in accordance with the Credit Agreement, and (ii) CITY has funds available and appropriated for payment of the DIF Reimbursement Amount.

    b. Developer shall not be entitled to any interest or other cost adjustment for any delay between the time when the dollar amount of the DIF Reimbursement is determined and the time when payment of the DIF Reimbursement is made to Developer by CITY.

6. Affirmation of Credit Agreement. CITY and Developer represent and warrant to each other that there have been no written or oral modifications or amendments of the Credit Agreement, except by this Agreement. CITY and Developer ratify and reaffirm each and every one of their respective rights and obligations arising under the Credit Agreement. CITY and Developer represent and warrant that the Credit Agreement is currently an effective, valid, and binding obligation.

7. Incorporation Into Credit Agreement. Upon execution of this Agreement, an executed original of this Agreement shall be attached as Exhibit "D" to the Credit Agreement and shall be incorporated therein as a material part of the Credit Agreement as though fully set forth therein.

8. Terms of Credit Agreement Controlling. Each Party hereby affirms that all provisions of the Credit Agreement are in full force and effect and shall govern the actions of the Parties under this Agreement as though fully set forth herein and made specifically applicable hereto, including without limitation, the following sections of the Credit Agreement: Sections 10 through 10(c), Section 12, Sections 13 through 13(g), and Sections 14 through 14(e).

[SIGNATURES OF PARTIES ON NEXT PAGE]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the day and year first above written.

Dated: _____

City of McFarland,
a California municipal corporation

By: _____
Sally Tafoya,
Mayor

Attest:

_____
Francisca Alvarado, City Clerk

Dated: _____

SHAFTER MEDICAL PLAZA LLC,
a California partnership.

By: _____
Name: _____
Title: _____

SIGNATURES MUST BE NOTARIZED

Approved as to form:

_____
Nathan Hodges, City Attorney

MEMORANDUM

CITY OF MCFARLAND

TO: Honorable Mayor and Council Members

FROM: Kenny Williams, City Manager
Larry A Ronk III, Interim Community Development Director

DATE: April 14, 2022

SUBJECT: Report, Discuss, and Possible Approval of Easement Agreement with Shafter Medical Plaza LLC for Parking on City Drainage Easement.

SUMMARY:

Shafter Medical Plaza LLC has brought a development to the City of McFarland for a multi-use medical facility. The development will provide on-site parking and will have some available parking along Elmo Hwy as well. Through the city circulation element and road dedication requirements, Elmo Hwy requires a widening of the road. With widening of the road, it eliminated multiple parking spots on the property that based on the development would not comply with the ordinances for parking. The developer requested possible approval of parking on drainage easement to create more parking for clients and residents to use. This action was approved by previous city manager and planning commission.

This Easement Agreement will help the city be not liable for an incidents and holds the developer accountable. The easement is to be developed to city standards and approved by city engineer for parking. No building shall be built on the easement. The maintenance of the easement will be taken care by City and will be at the cost of the Developer. The Developer and City will confer in a good faith effort to resolve all difference is any arise and come to an understanding of maintenance of the easement. This agreement also hold the developer to indemnify, protect, defend and hold the City and its officials, officers, employees, and agents harmless from and against any and all demands, liabilities, damages, expenses, losses, costs, causes of action, suits, claims, and judgments, including without limitation reasonable attorneys'' fees, arising out the making the Parking Area available for use by Employees, Visitors, and the general public.

RECOMMENDATION:

Staff recommends the City Council to Approve Easement Agreement with Shafter Medical Plaza LLC.

FISCAL IMPACT:

ATTORNEY FEES (DRAFT AND REVIEW)

ATTACHMENTS:

REIMBURSEMENT AGREEMENT
RESOLUTION NO. 2022-0027

RESOLUTION NO. 2022-0027
A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING EASEMENT AGREEMENT WITH SHAFTER MEDICAL PLAZA LLC

WHEREAS, City is the owner of fee simple title to certain real property located in Kern County, California, more particularly described in Exhibit "A" attached hereto and by this reference made a part hereof (the "Parking Parcel"); and

WHEREAS, Shafter Medical Plaza, LLC ("SMP") is the owner of fee simple title to certain real property located in Kern County, California, more particularly described in Exhibit "B" attached hereto and by this reference made a part hereof (the "Benefitted Parcel"); and

WHEREAS, the City has approved SMP's Site Development Plan for the Benefitted Parcel; and

WHEREAS, the Benefitted Parcel is intended to be developed as a mixed-use development containing: (i) Pediatric Office; (ii) Lab; (iii) Future Urgent Care or Medical; (iv) X-Ray; and (v) such other uses as may be permitted and approved under Applicable Laws (collectively, the "Project"); and

WHEREAS, the Parking Parcel is a drainage easement, which is currently undeveloped; and

WHEREAS, the Benefitted Parcel, as designed, does not include the proper number of parking spaces to comply with the City's Municipal Code requirements; and

WHEREAS, SMP has requested that the Benefitted Parcel be allowed to use the Parking Parcel to increase the parking available for the patrons, guests, and invitees of the businesses which will operate within the Benefitted Parcel; and

WHEREAS, in order to facilitate the orderly development and operation of the Project, the City and SMP desire to establish the terms and conditions upon which SMP and the employees and visitors to the Project may utilize the Parking Parcel for parking and access to the Benefitted Parcel as well as the circumstances under which the general public may also utilize the Parking Parcel for parking.

WHEREAS, the City believes it is in the City's best interest to allow the Benefitted Parcel to utilize the Parking Parcel.

WHEREAS, SMP has given approval to the terms of use of the Parking Parcel, as promulgated in the proposed easement agreement, which is attached hereto as Exhibit "C."

WHEREAS, the City Council received both written and oral testimony of Reimbursement Agreement on April 14th, 2022; and

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of McFarland that it hereby finds and determines as follows:

1) The foregoing recitals are true and correct.
2) The agreement (attached hereto as Exhibit "C") will take effect immediately;
3) The City Clerk shall certify to the passage and adoption of this resolution .

I hereby certify that the foregoing is a full, true and correct copy of the resolution of the City Council of the City of McFarland at a meeting held on Thursday, April 14, 2022, moved by Councilmember _____and seconded by Councilmember _____, duly adopted and passed by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Sally Tafoya, Mayor

_____
Francisca Alvarado, City Clerk

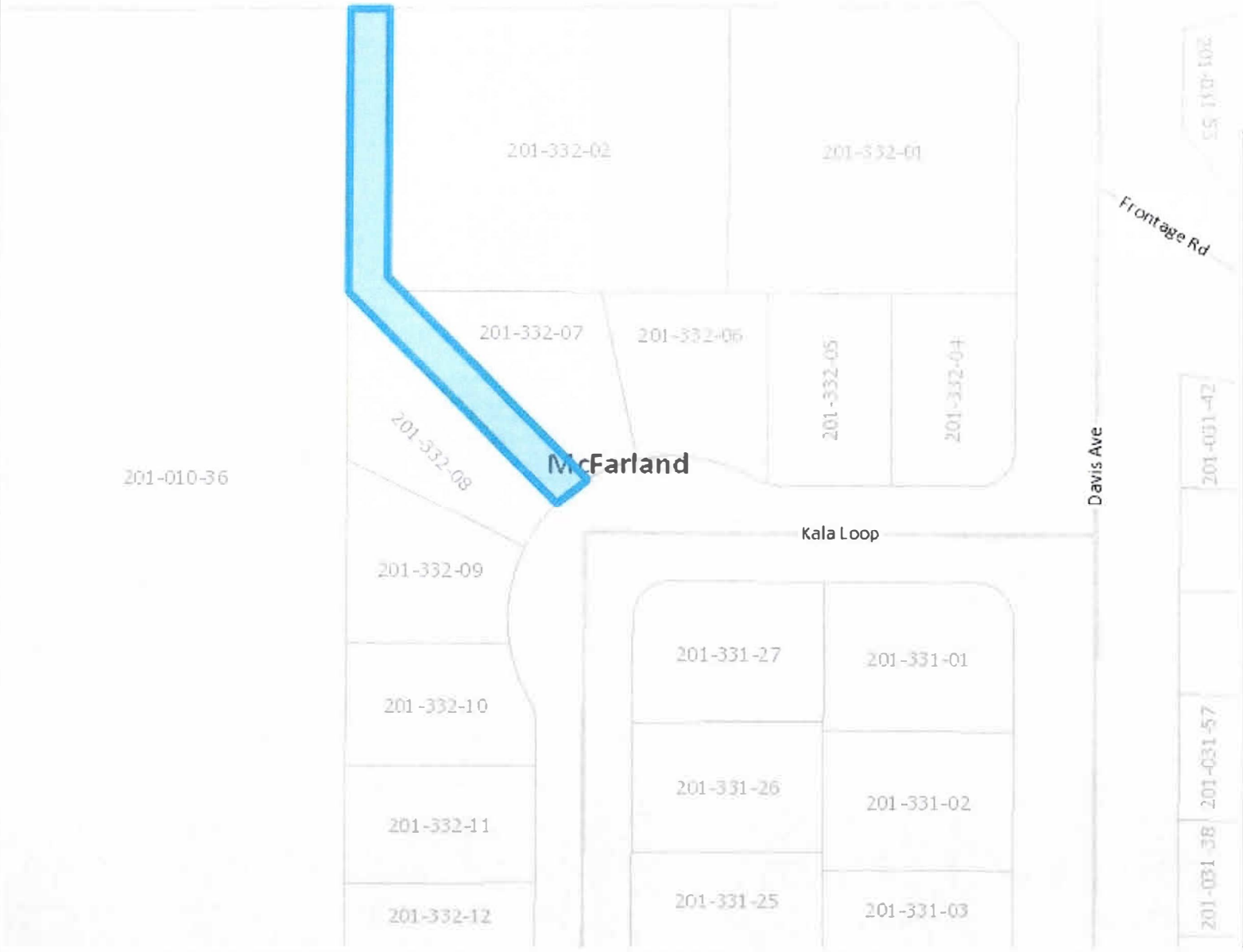
Attachments:

- Exhibit "A" – Parking Parcel
- Exhibit "B" – Benefitted Parcel
- Exhibit "C" – Easement Agreement

Kern County
Online Mapping System

Generated by Kern County Web Map Service
Exhibit A





Legend

Roads
- Freeway
- Highway
- Major
- Minor
- Local
- Ramp
- Unpaved

City Incorporated
Parcels Land

1: 1,128

0.0 0 0.02 0.0 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for general reference only. The County of Kern assumes no liability for damages, incurred by the user of this information, which occur directly or indirectly as a result of errors, omissions or discrepancies in the information.

Notes

Kern County
Online Mapping System

Generated by Kern County Web Map Service
Exhibit B



060-030-25

060-030-26

W Elmo Hwy

201-332-02

McFarland

201-332-01

201-010-36

201-332-07

201-332-06

201-332-05

201-332-04

Davis Ave

201-332-08

Kala Loop

201-332-09

201-331-27

201-331-01

Legend

Roads

- Freeway
- Highway
- Major
- Minor
- Local
- Ramp
- Unpaved

City Incorporated

Parcels Land

1: 1,128

0.0 0 0.02 0.0 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

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Notes

EASEMENT AGREEMENT

This EASEMENT AGREEMENT ("**Agreement**") is effective as of _____, 2022, ("**Effective Date**"), and is between the **CITY OF MCFARLAND**, a California municipal corporation and general law city ("**City**") and **SHAFTER MEDICAL PLAZA, LLC,** a California limited liability company ("**SMP**"). City and SMP are sometimes referred to individually as a "party," and collectively as the "parties." The parties agree as follows:

RECITALS

WHEREAS, City is the owner of fee simple title to certain real property located in Kern County, California, more particularly described in Exhibit "A" attached hereto and by this reference made a part hereof (the "Parking Parcel"); and

WHEREAS, SMP is the owner of fee simple title to certain real property located in Kern County, California, more particularly described in Exhibit "B" attached hereto and by this reference made a part hereof (the "Benefitted Parcel"); and

WHEREAS, the City has approved SMP's Site Development Plan for the Benefitted Parcel, which is attached hereto as Exhibit "C" and by this reference made a part hereof; and

WHEREAS, the Benefitted Parcel is intended to be developed as a mixed-use development containing: (i) Pediatric Office; (ii) Lab; (iii) Future Urgent Care or Medical; (iv) X-Ray; and (v) such other uses as may be permitted and approved under Applicable Laws (collectively, the "Project"); and

WHEREAS, the Parking Parcel is a drainage easement, which is currently undeveloped; and

WHEREAS, the Benefitted Parcel, as designed, does not include the proper number of parking spaces to comply with the City's Municipal Code requirements; and

WHEREAS, the Developer has requested that the Benefitted Parcel be allowed to use the Parking Parcel to increase the parking available for the patrons, guests, and invitees of the businesses which will operate within the Benefitted Parcel; and

WHEREAS, in order to facilitate the orderly development and operation of the Project, the City and SMP desire to establish the terms and conditions upon which SMP and the employees and visitors to the Project may utilize the Parking Parcel for parking and access to the Benefitted Parcel as well as the circumstances under which the general public may also utilize the Parking Parcel for parking.

NOW THEREFORE, for and in consideration of the premises hereof, of the mutual covenants and benefits herein provided and for other good valuable considerations, the receipt and sufficiency of which are hereby acknowledged, City and Developer hereby agree as follows.

ARTICLE 1
DEFINED TERMS

The following capitalized terms in this Agreement have the meanings set forth below.

1.1 **Employees** mean persons who work in the Office Building.

1.2 **Parking Area** means the portions of the Parking Parcel on which parking spaces including drive aisles and the entry driveway are located as depicted on the Site Plan.

1.3 **Parcel** refers individually to the Benefitted Parcel or the Parking Parcel, as applicable, and **Parcels** refers to both the Benefitted Parcel and Parking Parcel.

1.4 **Regular Business Hours** means the period between 7 AM and 7 PM, Monday through Friday, excluding California state holidays, during which time business is conducted at the Office Building.

1.5 **Visitors** mean guests, invitees, officials and other persons visiting the Office Building.

ARTICLE 2
EASEMENTS

2.1 Grant of Easements. Subject to the terms and conditions of this Agreement, City hereby grants to SMP, for the benefit of the Benefitted Parcel, a non-exclusive easement for vehicular parking to use at least the minimum number of parking spaces within the Parking Area on the Parking Parcel as may be required under the City's parking regulations for the use of the Office Building ("**Parking Easement**"). City further grants to SMP, for the benefit of the Benefitted Parcel, a non-exclusive easement for pedestrian and vehicular ingress and egress over the Parking Area for the purpose of access to the Office Building.

2.2 Use of Parking Area.

2.2.1 Types of Vehicles. Use of the parking spaces under the Parking Easement is limited to the parking of automobiles, motorcycles, and small trucks, such as pickup trucks, and may not be used for staging or storage or for the parking of larger or heavier commercial vehicles, such as buses.

2.2.2 Right to Designate Parking Spaces. In the event that parking demand by the general public in the Parking Area significantly interferes with Employee and Visitor parking for the Office Building, the parties will meet and confer and determine the extent to which SMP may designate certain parking spaces for Employees and Visitors of the Office Building during Regular Business Hours.

2.2.3 Limitation on City Liability. Use of the Parking Area, and the exercise of the easement rights under this Agreement is at the sole risk of SMP and the Employees and Visitors of the Office Building, and in no event will City have any liability for any damages caused to any Employee or Visitor or the vehicles or personal property of any Employee or Visitor, except for liability arising out of City's gross negligence or willful misconduct.

2.2.4 Parking Area to Remain Open. SMP acknowledges and agrees that the Parking Area shall remain open for public parking at all times.

ARTICLE 3
IMPROVEMENT, MAINTENANCE AND ADMINISTRATION

3.1 Improvement and Maintenance of Parking Area.

3.1.1 Improvement. The Parking Area is currently undeveloped and is used as a drainage easement. SMP shall be responsible to develop the Parking Area in a manner that allows the current use to continue, while also allowing SMP to use the Parking Area in the manner described above.

(a) ***SMP's Duties Regarding Improvement Work***. SMP hereby agrees that:

i. Prior to developing the Parking Area, SMP shall submit the development/improvement plans to the City Engineer for review. SMP agrees to pay all the costs associated with this Improvement.

ii. Prior to commencing work SMP or SMP's contractor shall provide a Notice of Commencing Work to City.

iii. All Works of improvement shall be constructed by SMP at SMP's sole cost and expense in accordance with the improvement plans and specifications prepared by SMP's Civil Engineer and approved by the City Engineer in a good and workmanlike manner, in accordance with all City standards, specifications and applicable laws, rules and regulations, to the satisfaction of the City Engineer. SMP agrees that the City Engineer shall have the right to reject any or all of the work to be performed under this Agreement if such work does not conform with the plans and specifications, City standards, or any applicable law, rule, or regulation;

iv. SMP shall cause to be made and pay for soil tests conducted by a reputable soils testing laboratory to determine gradation, bearing, and resistance value of soils within the Parking Parcel from which to determine the nature of the Works of improvement necessary. SMP shall also cause to be made and pay for all necessary tests including, but not limited to, necessary tests related to Section 19 (Earthwork), Section 26 (Aggregate Bases), and Section 39 (Asphalt Concrete) of the most current edition of Standard Specifications issued by the California Department of Transportation as of the Effective Date of this Agreement.

v. SMP shall pay to the City the cost of inspecting the Works of improvement including the costs of staff time and any consulting services determined necessary by the Director of Public Works;

vi. SMP shall furnish to the City the release, indemnity agreement and insurance coverage as required by this Agreement.

3.1.2 Time For Completion. Subdivider hereby agrees to construct all required Works of improvement as follows:

(a) All required improvements shall be complete to the satisfaction of the City Engineer, and in accordance with the terms of this Agreement prior to issuance of the final inspection approval for any structure built on any parcel within the Benefitted Parcel and within twelve (12) months of the effective date of this Agreement.

(b) Any work which affects any existing City maintained road or traffic thereon shall be completed within ninety (90) working days from start of work within the City maintained road.

(c) All off-site work (if any), shall be done prior to or concurrently with on-site work, unless otherwise expressly specified by the conditions of the tentative map for the subject subdivision, and initialed by the City Engineer here ____;

(d) The time for completion may be extended by the City Council in its sole discretion, for good cause shown in writing by SMP. The City Council may, in its sole discretion, allow up to three extensions of this Agreement of up to 60 days each, provided that all requirements under this Agreement or imposed by law are met by SMP.

(e) In the event SMP fails to complete the Works of improvement within the time specified herein, City may complete said work and SMP promises to pay City the full cost and expenses thereof or City may recover the same from SMP, including reasonable attorney fees. City, in its sole discretion, may require SMP to pay City in advance, sufficient monies to cover City's cost in completing construction of the improvements; and

(f) In the event SMP has not completed the required works of improvement within the period of time allowed by this Agreement (including any duly obtained extensions), SMP shall not proceed further with any work of improvement unless and until approval to do so is obtained from the City.

3.1.3 Inspection And Approval Of Work

(a) All improvement work shall be subject to inspection by the City Engineer or his/her designee and shall be found to be in substantial compliance with the approved Improvement Plans and McFarland City Standards.

(b) When all of the required improvement work has been satisfactorily completed, upon written application of SMP, the City Engineer or his/her designee shall inspect the same within a reasonable time. If such improvement work meets City requirements, the City Engineer or his/her designee shall forward his/her recommendation to City Council showing the date of inspection and approval.

(c) If the City Council approves the recommendation, it shall make its order accepting or approving the work of improvement.

(d) Such order of acceptance or approval made by the City Council shall be deemed operative from the time of approval of the work of improvement by the City Engineer or his/her designee.

3.1.4 Supplying "Record Drawing" Plans. Upon completion of the Works of

improvement and prior to certification of completion, Subdivider shall supply City, at no cost to City, one mylar (4 mils) set of "record" drawings. These drawings shall be certified as being "record drawings" and shall reflect the improvements as actually constructed, with all changes incorporated therein.

3.1.5 Ownership Of Works Of Improvement. Upon acceptance of any Work of improvement by the City Council of the City of McFarland, such improvement shall become the property of the City without any compensation paid to SMP or any other person.

3.1.6 Regular Maintenance. SMP shall be responsible for all regular maintenance of the Parking Area. For purposes of this section, regular maintenance of the Parking Area means all regular maintenance required to keep the Parking Area in good condition and repair, including minor repairs and the maintenance of any landscaped areas. SMP agrees to pay all the costs associated with such regular maintenance. Should SMP fail to provide regular maintenance, City shall provide notice of such failure and SMP shall have 15 days to cure. Should SMP fail to provide the required maintenance after the 15 day cure period, City shall have the right to conduct the required regular maintenance. In such a situation, SMP agrees to pay the City the costs associated with such regular maintenance, which will include the cost of the City employees or contractors performing such maintenance as well as the reasonable costs of any equipment or supplies needed to perform the work. City will invoice SMP upon conclusion of such maintenance, which invoice must be paid within 30 days of receipt by SMP. If parties ever disagree about the level and quality of maintenance that SMP is providing, the parties will meet and confer in a good faith effort to resolve the differences between the expected level of maintenance and the provided level of maintenance.

3.1.7 Long-Term Maintenance. The parties acknowledge and agree that proper long-term maintenance of the surface of the Parking Area requires that it be slurry sealed approximately every five years from the Effective Date, and that the surface be completely overlaid every 20 years. SMP will cause such long-term maintenance to be performed as periodically needed. SMP agrees to pay the costs associated with such long-term maintenance. Should SMP fail to provide the Long-Term maintenance, City shall provide notice of such failure and SMP shall have 15 days to cure. Should SMP fail to provide the required maintenance after the 15 day cure period, City shall have the right to conduct the required Long-Term maintenance. In such a situation, City will notify SMP of the estimated costs of such long-term maintenance before the commencement of the work and will invoice SMP for the final cost upon completion of the work. SMP must pay the invoice within 30 days of receipt.

3.2 Notice of Damage; Third Party Claims. Each party agrees to provide prompt notice to the other party with respect to any unusual damage to the Parking Area including information regarding who may have caused such damage. Each party also agrees to use commercially reasonable efforts to pursue any available claims for damage with respect to third parties, including third parties that may have a contractual obligation to either City or SMP to pay the costs of repairing such damage. In the event of any such unusual damage, the City agrees to promptly perform any required repairs subject to reimbursement by SMP such repair costs in accordance with Section 3.1.6 above, less any third-party reimbursement received.

ARTICLE 4
INSURANCE AND INDEMNITY

4.1 Insurance. SMP must at all times maintain or cause to be maintained in full force and effect a commercial general liability insurance policy (on an occurrence and a per location basis) insuring against all claims for personal injury, death or property damage occurring upon, in or about the Parking Parcel as a result of SMP's rights to use the Parking Area and its performance of its obligations under this Agreement, with combined single limits of at least Two Million Dollars ($2,000,000.00) per occurrence, which insurance must include broad form blanket contractual coverage covering the insured's obligations under this Agreement and must include the City as an additional insureds. On or before the Effective Date, and annually thereafter, SMP must submit to City a certificate of insurance evidencing the insurance coverage required under this section.

4.2 Indemnity. SMP agrees to indemnify, protect, defend and hold the City and its officials, officers, employees and agents harmless from and against any and all demands, liabilities, damages, expenses, losses, costs, causes of action, suits, claims, and judgments, including without limitation reasonable attorneys' fees, arising out of the parties making the Parking Area available for use by Employees, Visitors and the general public. Notwithstanding the foregoing, SMP has no obligation to indemnify, protect, defend or hold the City or its officials, officers, employees and agents harmless in the event such demand, liability, damage, expense, cause of action, suit, claim or judgments arises out of the gross negligence or willful misconduct of the indemnified parties. The provisions of this Section 4.2 will survive the termination of this Agreement.

ARTICLE 5
TERMINATION

5.1 City's Exercise of its Power of Termination. The parties acknowledge and agree that the City has a power of termination that provides it with the right to terminate the Easements created by this Agreement in the event that: (a) SMP fails to obtain a Certificate of Occupancy for the Office Building; (b) SMP fails to complete the agreed upon improvements to the Parking Parcel by the "Completion Date;" or (c) SMP breaches the terms of this Agreement. If title to the Benefitted Parcel is conveyed to a third party, then upon such reconveyance of title, this Agreement and all easement and other rights granted will automatically terminate.

5.2 SMP's Exercise of its Power of Termination. The parties acknowledge and agree that SMP has a power of termination that provides it with the right to terminate the Easements created by this Agreement in the event that: (a) on/off site private parking is provided to the building's users sufficient to comply with the McFarland Municipal Code, or any other applicable laws, rules, regulations or guidelines; (b) the City's parking requirements are modified such that the additional parking provided in the Easement is no longer required so as to comply with the Municipal Code, or any other applicable laws, rules, regulations or guidelines; or (c) upon a mutual written agreement of the Parties.

ARTICLE 6
MISCELLANEOUS

6.1 Covenants Running with the Land; Prohibition of Fragmentation of Ownership of Easements. The easements and all of the provisions, agreements, covenants,

conditions, restrictions and obligations contained in this Agreement are binding upon City and SMP as the owners of the Parking Parcel and Benefitted Parcel, respectively, and their respective heirs, executors, administrators, successors, assigns, devisees, representatives, and all other persons acquiring any portion of either property, or any interest therein whether by operation of law or any manner whatsoever. All the provisions of this Agreement are covenants running with the land pursuant to applicable law, including but not limited to Civil Code section 1468. It is expressly agreed that (i) each covenant contained herein is for the benefit of each Parcel in the manner described in this Agreement as being benefitted by such covenant and a burden upon each Parcel; in the manner described in this Agreement as being a burden by such covenant, (ii) runs with each of the Parcels, and (iii) benefits and is binding upon each successor owner or tenant of the specified Parcels and portions thereof during its ownership of a Parcel. The ownership of the easements granted by this Agreement will be held at all times in their entirety solely by the fee title owner of the Benefitted Parcel, and no sale, assignment, transfer or conveyance of such easement rights in part or to any other party is allowed.

6.2 Notices. All notices or other communications required or permitted under this Agreement must be in writing and must be delivered either by hand (including by courier or reputable overnight delivery service), facsimile, or deposited in the United States Mail, registered or certified mail, postage prepaid, and addressed as follows:

City: 401 W Kern Avenue
McFarland, California 93250
Attn: City Manager
Fax (661) ___-____

SMP: PO BOX 22694
Bakersfield, CA 93390
Attn: Ayodeji Ayeni

Notices which are delivered by hand, overnight delivery or facsimile will be deemed received upon delivery; notices which are deposited in the United States Mail in accordance with the terms of this section will be deemed received three days after the date of mailing. City and SMP may each change its address for the purpose of receiving notices, and other communications by a written notice to the other party given in the manner provided by this section.

6.3 Binding Effect. All of the limitations, covenants, conditions, easements, and restrictions contained in this Agreement attach to and run with the Parking Parcel and Benefitted Parcel and will, except as otherwise set forth herein, benefit or be binding upon the successors and assigns of the respective Parcels.

6.4 Attorneys' Fees. In the event of any action or proceedings between the City and SMP for breach of or to enforce any provision or right under this Agreement, the non-prevailing party in such action will pay to the prevailing party all costs and expenses expressly including, but not limited to, reasonable attorneys' fees incurred by the prevailing party in connection with such action or proceeding. The prevailing party includes without limitation a party who dismisses an action or proceeding under this Agreement in exchange for consideration substantially equal to the relief sought in the action or proceeding.

6.5 Effect On Third Parties. The rights, privileges, or immunities conferred under this Agreement are for the benefit of the owners of the Parcels and not for any third party.

6.6 Waiver. No waiver of any provision of this Agreement or any breach of this Agreement will be effective unless such waiver is in writing and signed by the waiving party and any such waiver will not be deemed a waiver of any other provision of this Agreement or any other or subsequent breach of this Agreement.

6.7 Severability. In the event any term, covenant, condition, or provision of this Agreement is held to be invalid, void, or otherwise unenforceable, by any court of competent jurisdiction, such holding will in no way affect the validity of enforceability of any other term, covenant, condition, or provision of this Agreement.

6.8 Governing Law. This Agreement is governed by the laws of the State of California. In any suit, action, or proceeding arising out of or related to this Agreement, the parties submit to the jurisdiction and venue of the Superior Court of the County of Kern.

6.9 Captions. Article and section titles or captions contained herein are inserted as a matter of convenience and for reference, and in no way define, limit, extend, or describe the scope of this Agreement or any provisions hereof.

6.10 Release. If SMP or the City sells, transfers or assigns its entire Parcel or its interest in any portion thereof, it will be released from any obligations arising after the date of such sale, transfer or assignment, and thereafter any transferee or assignee will be deemed to have accepted such obligations.

6.11 Time of Essence. Time is of the essence with respect to the performance of each of the covenants and agreements contained in this Agreement.

6.12 Counterparts. This Agreement may be executed in more than one counterpart, each of which will be deemed an original, and all of which together will constitute one and the same instrument.

6.13 Exhibits. All exhibits referred to in this Agreement are attached to this Agreement and incorporated by reference.

6.14 Memorandum of Agreement. This agreement will not be recorded; however, the parties will record a Memorandum of Agreement in substantially the same form as the memorandum attached as Exhibit D.

THE UNDERSIGNED AUTHORIZED REPRESENTATIVES OF THE PARTIES have executed this Agreement as of the Effective Date set forth above.

CITY:

CITY OF MCFARLAND

_____

Sally Tafoya, Mayor

SMP:

ATTEST:

SHAFTER MEDICAL PLAZA, LLC

By:_____
Name:_____
Title:_____

_____
Francisca Alvadaro, City Clerk

Exhibit A

Legal Description of Parking Parcel

EF

RECORDING REQUESTED BY

STEWART TITLE

AND WHEN RECORDED MAIL TO

NAME City of McFarland
STREET ADDRESS P.O. Box 1488
CITY & STATE McFarland, CA 93250

072913

BOOK 5945 PAGE 2383
1986 DEC -9 A 8:00
RECORDED BY GALE S. ENSTAD
KERN COUNTY CLERK-RECORDER

URS .00
FREE REC .00

SPACE ABOVE THIS LINE FOR RECORDER'S USE

136/53

DOCUMENTARY TRANSFER TAX $ *nil
— COMPUTED ON FULL VALUE OF PROPERTY CONVEYED.
— OR COMPUTED ON FULL VALUE LESS LIENS AND ENCUMBRANCES REMAINING AT TIME OF SALE.
STEWART TITLE
Signature of Declarant or Agent determining tax. Firm Name

Individual Grant Deed

THIS FORM FURNISHED BY STEWART TITLE

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

JAMES E. MILES AND LAHOMA E. MILES, husband and wife as joint tenants

hereby GRANT(S) to

the CITY OF MC FARLAND, a municipal corporation

the following described real property in the City of McFarland
County of Kern State of California, described as:

Lot 49 of Tract 4795, in the City of McFarland, County of Kern, State of California, as per Map thereof recorded August 29, 1985, in Book 34, Page 144 of Maps, in the Office of the County Recorder of said County.

Excepting therefrom all oil, gas, hydrocarbons and all minerals lying in, on or under said land, as reserved in deeds of record.

Also excepting all remaining oil, gas, hydrocarbons and other minerals.
*Above described Lot 49 of Tract 4795 is for drainage purposes and is hereby granted to the City of McFarland as required.

Dated: November 12, 1986

James E. Miles

Lahoma E. Miles

By James E. Miles
Her Att. In Fact

STATE OF CALIFORNIA
COUNTY OF KERN } ss.

On November 12, 1986 before me, the undersigned, a Notary Public in and for said County and State, personally appeared JAMES E. MILES

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name IS subscribed to the within instrument and acknowledged that HE executed the same.

OFFICIAL SEAL
YVONNE THOMPSON
NOTARY PUBLIC-CALIFORNIA
BOND FILED IN
KERN COUNTY
My Commission Exp. Jan 5, 1990

YVONNE THOMPSON
Name (Typed or Printed)
Notary Public in and for said County and State

APN

MAIL TAX STATEMENTS TO: Name Address Zip

O-100

(Attorney in Fact)

STATE OF CALIFORNIA
COUNTY OF KERN } ss.

BOOK 5945 PAGE 2384

On November 12, 1986 before me, the undersigned, a Notary Public in and for said State, personally appeared JAMES E. MILES, known to me to be the person whose name IS subscribed to the within instrument, as the Attorney in fact of LAHOMA E. MILES, and acknowledged to me that HE subscribed the name of LAHOMA E. MILES thereto as principal and HIS own name as Attorney in fact.

STAPLE HERE

WITNESS my hand and official seal.

Signature: Yvonne Thompson

YVONNE THOMPSON
Name (Typed or Printed)

OFFICIAL SEAL
YVONNE THOMPSON
NOTARY PUBLIC-CALIFORNIA
KERN COUNTY
My Commission Exp. Jan. 5, 1990

(This area for official notarial seal)

BOOK 5945 PAGE 2385

CERTIFICATE OF ACCEPTANCE OF GRANT DEED
TO REAL PROPERTY IN THE CITY OF McFARLAND,
KERN COUNTY, CALIFORNIA

THIS IS TO CERTIFY that the interest in real property conveyed by the deed or grant dated Nov. 12, 1986, from James E. and Lahoma E. Miles, to the CITY OF McFARLAND, a municipal corporation, is hereby accepted by order of the City Council of the City of McFarland on Nov. 13, 1986, and the Grantee consents to recordation thereof by its duly authorized officer.

Dated: Dec. 4, 1986.

Carl L. Boston
CARL L. BOSTON, Mayor

STATE OF CALIFORNIA)
ss.
COUNTY OF KERN)

On this 4th day of December, in the year 1986, before me, the undersigned, a Notary Public in and for said State, personally appeared CARL L. BOSTON, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument as Mayor of the CITY OF McFARLAND and acknowledged to me that the CITY OF McFARLAND executed it.

WITNESS my hand and official seal.

(SEAL) OFFICIAL SEAL
M DWAIN SMITH
NOTARY PUBLIC - CALIFORNIA
KERN COUNTY
My comm. expires MAR 25, 1988

M. Dwain Smith
Notary Public

Exhibit B

Legal Description of Benefitted Parcel

LEGAL DESCRIPTION

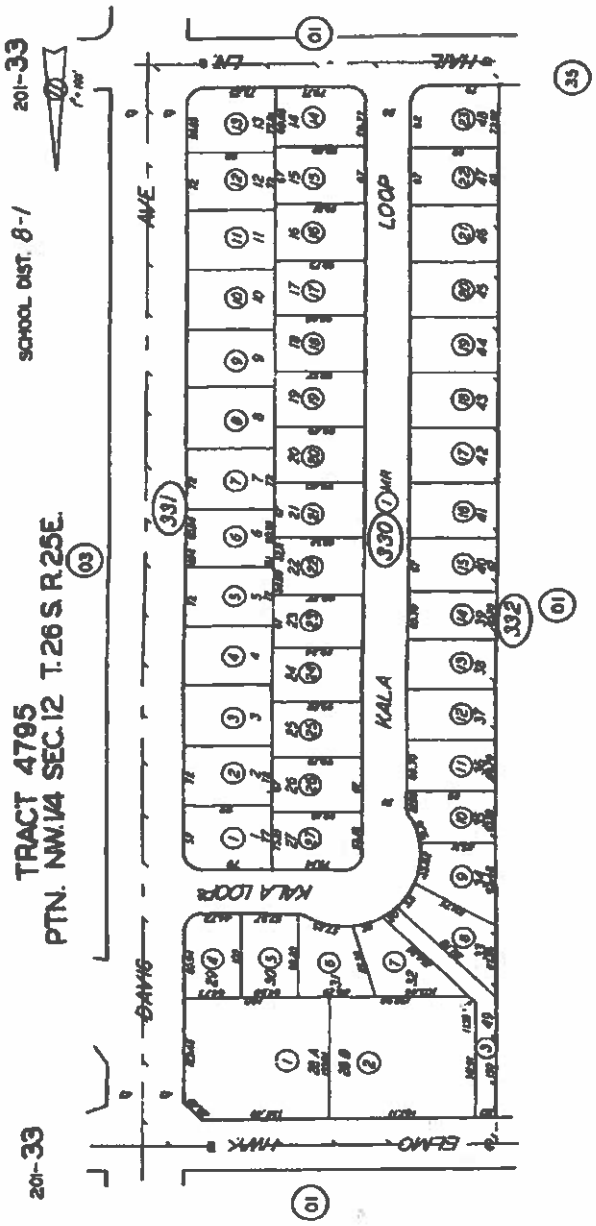
Real property in the City of Mcfarland, County of Kern, State of California, described as follows:

LOT 28-B OF TRACT NO. 4795 IN THE CITY OF MC FARLAND, COUNTY OF KERN, STATE OF CALIFORNIA, AS PER MAP RECORDED AUGUST 29, 1985, IN BOOK 34, PAGE 144 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING THEREFROM 1/2 INTEREST IN ALL GAS, OIL, HYDROCARBONS AND ALL MINERALS LYING IN, ON OR UNDER SAID LAND, AS RESERVED BY SECURITY PACIFIC NATIONAL BANK, A NATIONAL BANKING ASSOCIATION, AS TRUSTEES UNDER THE WILL OF EUGENE NOAL MITCHELL, DECEASED, IN DEED RECORDED APRIL 5, 1974, IN BOOK 4834, PAGE 1710 AND RE-RECORDED APRIL 5, 1974, IN BOOK 4834, PAGE 2358 BOTH OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM ALL REMAINING OIL, GAS AND OTHER MINERAL RIGHTS BELONGING OR APPERTAINING TO SAID PROPERTY, THE EXCLUSIVE RIGHT TO PROSPECT FOR, DRILL FOR, PRODUCE, MINE, EXTRACT AND REMOVE OIL, GAS AND OTHER MINERALS UPON AND FROM SAID PROPERTY, THE EXCLUSIVE RIGHT TO DRILL UPON, TO DRILL THROUGH AND OTHERWISE TO USE SAID PROPERTY TO PRODUCE, MINE, EXTRACT AND REMOVE OIL, GAS AND OTHER MINERALS FROM ADJACENT OR NEIGHBORING LANDS, AND THE EXCLUSIVE RIGHT TO INJECT IN, STORE UNDER AND THEREAFTER WITHDRAW FROM SAID PROPERTY OIL, GAS AND OTHER MINERALS AND PRODUCTS THEREOF, WHETHER PRODUCED FROM SAID PROPERTY OR ELSEWHERE; BUT UNLESS GRANTEE, ITS SUCCESSORS OR ASSIGNS SHALL GIVE WRITTEN CONSENT TO THE DRILLING OF WELLS UPON THE SURFACE OF SAID LAND, ALL OF THE FOREGOING RIGHTS SHALL BE EXERCISED ONLY BY THE DRILLING OF WELLS FROM LOCATIONS ON ADJACENT OR NEIGHBORING LANDS INTO OR THROUGH SAID PROPERTY AT LEAST 500 FEET BELOW THE SURFACE OF THE GROUND AND WITHOUT ENTERING UPON OR USING ANY PORTION OF SAID PROPERTY LYING ABOVE SAID DEPTH, AS RESERVED BY JAMES E. MILES AND LAHOMA E. MILES, HUSBAND AND WIFE, IN PREVIOUS DEED OF RECORD.

APN: 201-332-02-00-1

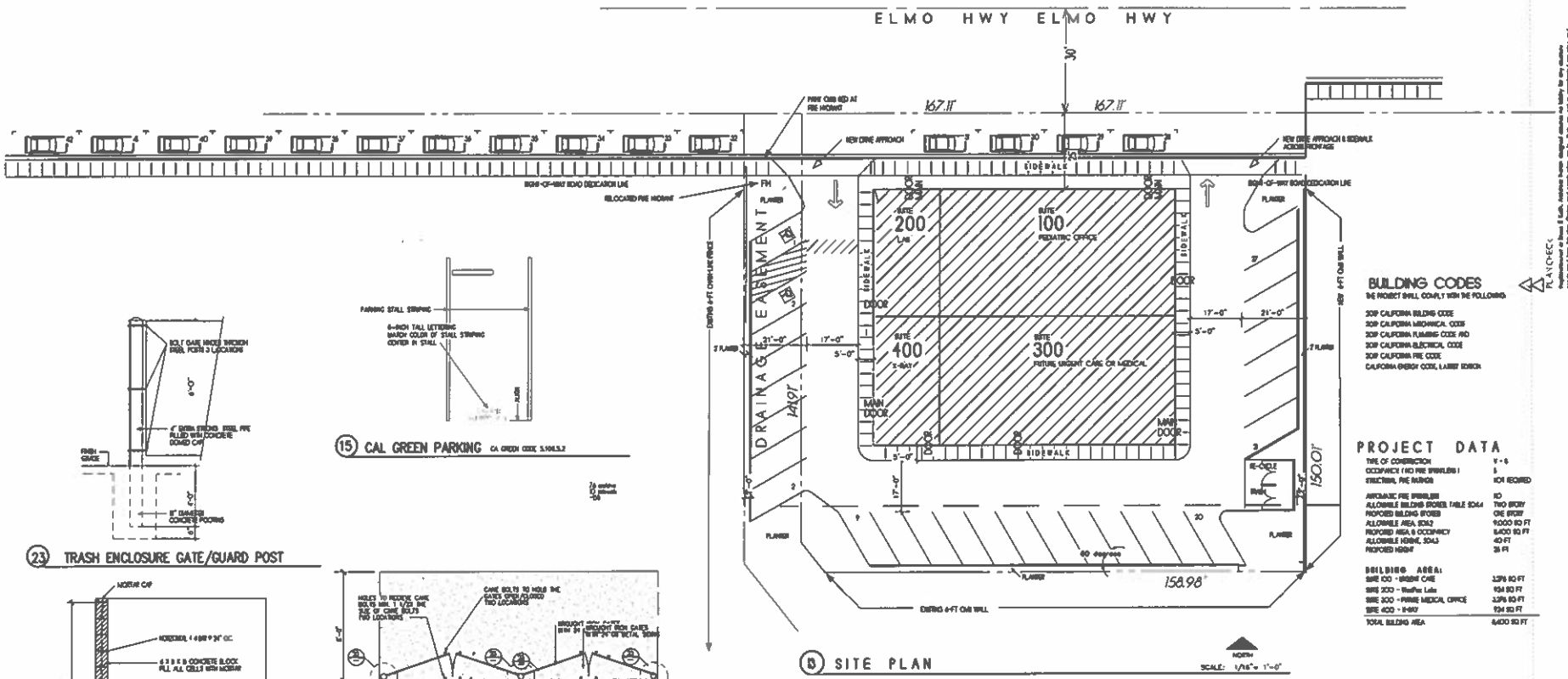


Filed Aug. 29, 1966

ASSESSORS MAP NO. 201-33....
COUNTY OF KERN

Exhibit C

Site Development Plan

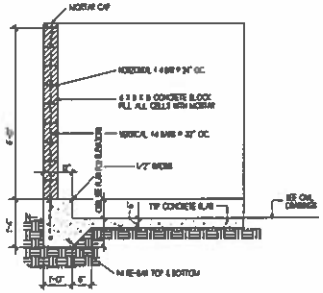


SITE PLAN

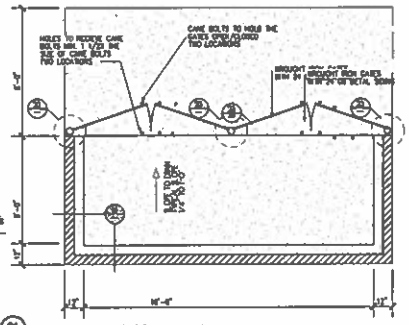
SCALE: 1/16" = 1'-0"

23 TRASH ENCLOSURE GATE/GUARD POST

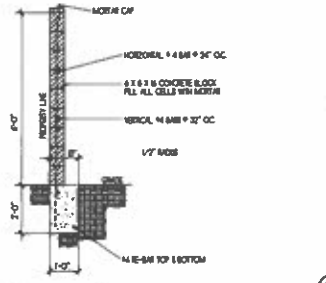
15 CAL GREEN PARKING CA GREEN CODE 5.106.5.2



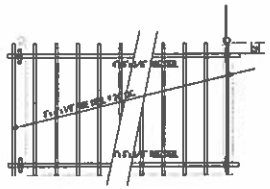
13 TRASH ENCLOSURE - SECTION



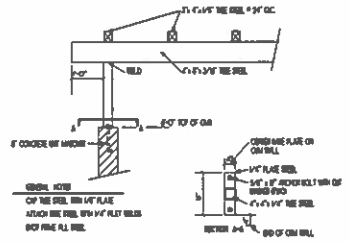
21 TRASH ENCLOSURE - two bins



25 PROPERTY LINE WALL



15 TRELLIS @ TRASH ENCLOSURE



BUILDING CODES

THE PROJECT SHALL COMPLY WITH THE FOLLOWING

2019 CALIFORNIA BUILDING CODE
2019 CALIFORNIA MECHANICAL CODE
2019 CALIFORNIA PLUMBING CODE AND
2019 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA FIRE CODE
CALIFORNIA ENERGY CODE, LATEST EDITION

PROJECT DATA

TYPE OF CONSTRUCTION	V - B
OCCUPANCY (NO FIRE SPRINKLERS)	B
STRUCTURAL FIRE RATINGS	NOT REQUIRED
AUTOMATIC FIRE SPRINKLER	NO
ALLOWABLE BUILDING STORIES, TABLE 504.4	TWO STORY
PROPOSED BUILDING STORIES	ONE STORY
ALLOWABLE AREA, 506.2	9,000 SQ FT
PROPOSED AREA & OCCUPANCY	6,400 SQ FT
ALLOWABLE HEIGHT, 504.3	40 FT
PROPOSED HEIGHT	35 FT
BUILDING AREA:	
SUITE 100 - URGENT CARE	1,376 SQ FT
SUITE 200 - Medical Lab	934 SQ FT
SUITE 300 - PRIVATE MEDICAL OFFICE	3,376 SQ FT
SUITE 400 - X-RAY	934 SQ FT
TOTAL BUILDING AREA	6,400 SQ FT

SITE PLAN - REFERENCE NOTES

- CIVIL GRATER & SIDEWALK, SEE GRADING PLAN
- "UNMANNED VEHICLE FOR ARMY" SIGN, SEE DETAIL 3/A/C.
- RESERVED CELL SIGN "VAN", R25 DETAIL 3/A/C. "NO FIRE EXIST" MOUNT ON BUILDING EXCEPT WHERE NOTED "TOP"
- RESERVED CELL SIGN, R25 DETAIL 3/A/C. "NO FIRE EXIST" MOUNT ON BUILDING EXCEPT WHERE NOTED "TOP"
- RESERVED SPACE, PAINTED BLUE COMPLYING COLOR, TRAFFIC PAINT OR PAVING 3/A/C.
- PAVING, SEE GRADING PLAN
- TYPICAL 9' X 18' PARKING SPACE WITH 4-INCH WIDE TRAFFIC PAINT STRIPING
- ACCESSIBLE LOADING AREA WITH "ACCESS" AND PAVEMENT & 8-INCH TALL LETTERS MARKING WITH 4-INCH WIDE WHITE TRAFFIC PAINT AT 3-FEET ON CENTER
- CROSS WALK DESIGNATED WITH CONTINENTAL 4_INCH WIDE MARKING @ 24FEET OC.
- DETECTABLE WARNING REINFORCED CONCRETE 36" WIDE IN DIRECTION OF TRAVEL
- 5" WIDE BORDER W/ 1/4" GROOVES IN CONCRETE, AT APPROXIMATE 3/4" OC.
- 4-FT RE-CAP CONCRETE BARRIER WHERE SHOWN, AT LOCATIONS

PARKING / ZONING ANALYSIS

PARCEL IDENTIFICATION NO. 209-332-02
MC FARLAND MUNICIPAL ORDINANCE REQUIREMENTS
ZONED: C2
MEDICAL OFFICE = 1 SPACE / 200 sq ft

OVERALL PROJECT PARKING REQUIREMENTS

6400 sq ft / 200 = 32 PARKING SPACES REQUIRED	27 ON-SITE SPACES PROVIDED	
OFF-SITE STREET PARKING	15 SPACES PROVIDED	
TOTAL	42 SPACES PROVIDED	
INCLUDING THE FOLLOWING		
ADA = VAN ACCESSIBLE SPACES	1 REQUIRED	1 PROVIDED
ADA = OTHER ACCESSIBLE SPACES	1 REQUIRED	1 PROVIDED
CLEAN AIR VEHICLE SPACES REQUIRED	4 SPACES	
BICYCLE PARKING		
SHORT TERM - RACKS AT 5% x 42 = 2.1	2 REQUIRED	2 PROVIDED
LONG TERM - LOCKERS AT 5% x 42 = 2.1	2 REQUIRED	2 PROVIDED

GEO-TECH CONSULTANT

SOILS ENGINEERING, INC
4400 REAMER WAY,
BAKERSFIELD, CA 93308
661-324-3000
RONWEST@SOILSENG.COM

CIVIL ENGINEER

McMORON & ASSOCIATES, INC
2001 WILLOW CORN
BAKERSFIELD, CA 93309
661-324-4971

SITE PLAN

MEDICAL OFFICES

221 Elmo Hwy, McFarland, Ca

Ayodeji Ayeni ayosike@yahoo.com

BRUCE E. KEITH ARCHITECT INC
THEPLANSTORE

DATE: 7/19/2021
DRAWN: BEK
JOB NO.: 21042

A1.0

PLANSCHECK
Copyright Bruce E. Keith Architect Inc

Exhibit D

Form of Memorandum of Easement Agreement

Recording Requested By,
and When Recorded Return
To:

City of McFarland
400 W Kern Avenue Drive
McFarland, California 93250
Attn: City Clerk

No Recording Fee: Govt. Code § 27383

MEMORANDUM OF EASEMENT AGREEMENT

This Memorandum of Easement Agreement ("**Memorandum**") is effective as of _, 2022, ("**Effective Date**"), and is between the **CITY OF MCFARLAND**, a California municipal corporation and general law city ("**City**") and the SHAFTER MEDICAL PLAZA, LLC, A California limited liability company ("**SMP**").

Recitals

A. City is the owner of the real property described in the attached Exhibit A ("**Parking Parcel**").

B. SMP is the owner of the adjacent real property described in the attached Exhibit B ("**Benefitted Parcel**").

C. City and SMP have entered into an Easement Agreement effective as of _____, 2022, and as it may be amended from time to time ("**Agreement**"), pursuant to which City granted SMP certain parking and pedestrian and vehicular ingress and egress rights, with respect to the Parking Parcel for the benefit of the Benefitted Parcel, subject to certain terms and conditions.

D. City and SMP desire to execute and record this Memorandum to provide constructive notice of each party's benefits and burdens under the Agreement to all third parties.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. Agreement Terms. SMP has been granted certain easement rights for the benefit of the Benefitted Parcel as set forth in the Agreement, which is incorporated in this Memorandum by reference. SMP, as owner of the Benefitted Parcel, also has certain burdens

arising from its use of the Parking Parcel including the cost of the improvements and maintenance of the Parking Parcel as more particularly set forth in the Agreement. City, as owner of the Parking Parcel, is also subject to the benefits and burdens of the Agreement.

2. Successors. This Memorandum and the Agreement are binding and inure to the benefit of the parties and their respective successors in interest to fee title to the Parking Parcel and Benefitted Parcel.

THE UNDERSIGNED AUTHORIZED REPRESENTATIVES OF THE PARTIES have executed this Memorandum as of the Effective Date set forth above.

CITY:

CITY OF MCFARLAND

_____
Sally Tafoya, Mayor

ATTEST:

_____
Francisca Alvadaro, City Clerk

SMP:

SHAFTER MEDICAL PLAZA, LLC

By:_____
Name:_____
Title:_____

MEMORANDUM

CITY OF MCFARLAND

TO: Honorable Mayor and Council Members

FROM: Kenneth Williams, City Manager
Larry Ronk, Interim Community Development Director

DATE: April 14, 2021

SUBJECT: Report, Discuss, and Possible Adoption of Resolution 2022-0021; FY 2021-2022 Low Carbon Transit Operations Program (LCTOP) Application and Resolution

RECOMMENDATION:

City Council to authorize the following individual(s) Kenneth Williams, City Manager or Mario Gonzales, Public Works Director to execute for and on behalf of the City of McFarland, any actions necessary for the purpose of obtaining Low Carbon Transit Operations Program (LCTOP) funds provided by the California Department of Transportation, and approve submission of application and adopt resolution titled **"**AUTHORIZATION FOR THE EXECUTION OF THE CERTIFICATIONS AND ASSURANCES AND AUTHORIZED AGENT FORMS FOR THE LOW CARBON TRANSIT OPERATIONS PROGRAM (LCTOP) FOR THE FOLLOWING PROJECT: MCFARLAND TRANSIT STATION $34,450.00.

SUMMARY:

The California Department of Transportation, Division of Rail and Mass Transportation (CALTRANS) issued a Notice of Funding Availability for Low Carbon Transit Operations Program (LCTOP) funds. This grant awards funds for operating and capital assistance for transit agencies to reduce greenhouse gas emissions and improve mobility, with a priority on serving disadvantaged communities.

This grant allocation is in the amount of $34,450.00 that can be used towards our McFarland Transit Station Project.

FISCAL IMPACT:

No match required; no fiscal impact.

ATTACHMENTS:

Resolution 2022-0021

RESOLUTION No. 2022-0021

AUTHORIZATION FOR THE EXECUTION OF THE CERTIFICATIONS AND ASSURANCES AND AUTHORIZED AGENT FORMS FOR THE LOW CARBON TRANSIT OPERATIONS PROGRAM (LCTOP) FOR THE FOLLOWING PROJECT(S): MCFARLAND TRANSIT STATION $34,450.00

WHEREAS, the City of McFarland is an eligible project sponsor and may receive state funding from the Low Carbon Transit Operations Program (LCTOP) for transit projects; and

WHEREAS, the statutes related to state-funded transit projects require a local or regional implementing agency to abide by various regulations; and

WHEREAS, Senate Bill 862 (2014) named the Department of Transportation (Department) as the administrative agency for the LCTOP; and

WHEREAS, the Department has developed guidelines for the purpose of administering and distributing LCTOP funds to eligible project sponsors (local agencies); and

WHEREAS, the City of McFarland wishes to delegate authorization to execute these documents and any amendments thereto to the mayor or Kenneth Williams, City Manager.

WHEREAS, the City of McFarland wishes to implement the following LCTOP project(s) listed above,

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of McFarland that the fund recipient agrees to comply with all conditions and requirements set forth in the Certification and Assurances and the Authorized Agent documents and applicable statutes, regulations and guidelines for all LCTOP funded transit projects.

NOW THEREFORE, BE IT FURTHER RESOLVED that mayor or Kenneth Williams, City Manager be authorized to execute all required documents of the LCTOP program and any Amendments thereto with the California Department of Transportation.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of McFarland that it hereby authorizes the submittal of the following project nomination(s) and allocation request(s) to the Department in FY2021-2022 LCTOP funds:

(Continued to next page)

List project(s), including the following information:
Project Name: McFarland Transit Facility
Amount of LCTOP funds requested: $34,450.00
Short description of project: Transit Facility
Benefit to a Priority Populations: Toxin Emission Reduction
Amount to benefit Priority Populations: $34,450.00

PASSED AND ADOPTED at a regular meeting of the City Council of the City of McFarland on the 14th day of April 2022 by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

ATTEST:

_____
Francisca Alvarado, City Clerk

CITY OF MCFARLAND:

_____
Sally Tafoya, Mayor

I, _____, City Clerk of the City of McFarland, California, DO HEREBY CERTIFY that the foregoing resolution is a true and accurate copy of the Resolution passed and adopted by the City Council of the City of McFarland on the date and by the vote indicated herein.

_____
Francisca Alvarado, City Clerk

MEMORANDUM

CITY OF MCFARLAND

TO: Honorable Mayor and Council Members

FROM: Kenny Williams, City Manager
Peter Consentini, Assistant City Manager
Larry A Ronk III, Interim Community Development Director

DATE: April 14, 2022

SUBJECT: Report, Discuss, and Possible Approval of Resolution No. 2022-0022 for Designating City Owned Land as Surplus Land and Begin Surplus Land Process.

SUMMARY:

Staff was contacted by multiple developers regarding city excess land that has not be developed. Due to the surplus land act, the city will have to give low-income housing priority. Commercial and industrial development will have to enter bids at the appraisal price and wait for availability to purchase from City. There is a state mandate that requires cities to follow to sell/lease surplus land. The Community Development department and City Manager will need to partner with the City Attorney to make sure all items are approved by the state and no laws are violated in the process of any sale/lease.

Staff has recommended the parcels attached in this staff report for surplus. The staff has found no future development to be developed on these properties. Three (3) properties are abandoned well site and the other is a commercial zone near the Perkins overpass on Industrial St. With approval to move forward to surplus, staff will notify the entities required to be compliant with the state for the 60 day period and will negotiate in good faith with entity for 90 day period. If agreement has been reached, this agreement will be brought to city council.

RECOMMENDATION:

Staff recommends the City Council approve resolution No. 2022-0022 for designating city owned land as surplus land and being surplus land process.

FISCAL IMPACT:

LEGAL FEES- CITY ATTORNEY

ATTACHMENTS:

RESOLUTION 2022-0022

RESOLUTION NO. 2022-0022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING THE DESIGNATION OF CITY OWNED LAND AS SURPLUS AND BEING SURPLUS LAND PROCESS

WHEREAS, under the Surplus Land Act, Government Code section 54220 et seq., as amended on January 1, 2020 (the "Act"), surplus land is defined as "land owned in fee simple by any local agency for which the local agency's governing body takes formal action in a regular public meeting declaring that the land is surplus and is not necessary for the agency's use"; and

WHEREAS, under the Act, real property owned by a local agency, must be declared as "surplus land" or "exempt surplus land" as supported by written findings prior to the local agency taking any action to dispose of it; and

WHEREAS, the Act authorizes the City to sell surplus real properties in the manner proscribed therein; and

WHEREAS, the City of McFarland owns certain real properties (i) identified in Exhibit A attached hereto, consisting of vacant and undeveloped land (the "Surplus Properties"); and

WHEREAS, there is no present or contemplated use for these properties and therefore, they are surplus to the needs of the City as they are not intended to be used for any governmental purpose or operations; and

WHEREAS, the City has determined it would be in the best interest of the City to dispose of the Properties; and

WHEREAS, the City now desires to declare the Surplus Properties as surplus land under the Act and to offer and initiate the sale of such properties in accordance with the procedures under the Act.

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of McFarland that it hereby finds and determines as follows:

Section 1. The above recitals are true and correct and incorporated herein by this reference.

Section 2. The City Council hereby finds and declares the Surplus Properties as surplus land under the Act, based on the written findings set forth below:

a) The Surplus Properties have been determined to be no longer needed by the City for any governmental purpose.

b) The City has no current or future plans to use the Surplus Properties for any agency/City work or operations or any other governmental purposes.

c) Therefore, the Surplus Properties are not necessary for the City's use and qualify as surplus land under the Act.

Section 4. The City Council hereby authorizes and directs the City Manager or his designee to send written notices of availability ("NOA") and offer the Surplus Properties for sale to each of the public agencies and entities listed in Government Code section 54222, and to negotiate the terms of a proposed sale of the Surplus Properties with any such agency or entity that responds to the NOA, and to otherwise follow the procedures of the Act, as applicable to a proposed sale of the Surplus Property.

Section 5. In the event that none of the public agencies or entities listed in Government Code section 54222 offer to purchase one or more of the Properties, or if the City and a public agency or entity listed in Government Code section 54222 does not reach an agreement on the terms and conditions of purchase/sale, the City intends to offer the Properties for sale to the general public in compliance with the requirements and procedures under the Act.

Section 6. Any proposed agreement(s) for the sale of the Surplus Properties shall ultimately be subject to the approval of the City Council.

Section 7. The disposal of the Surplus Properties is exempt from environmental review under the California Environmental Quality Act ("CEQA") pursuant to California Code of Regulation, Title 14, section 15312. However, if development was proposed on such properties by a subsequent buyer, then that development would be reviewed under CEQA.

Section 8. This resolution shall be effective on upon its adoption. The City Clerk shall certify the adoption of this Resolution.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of McFarland on the 14th day of April 2022 by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

ATTEST:

Francisca Alvarado, City Clerk

CITY OF MCFARLAND:

Sally Tafoya, Mayor

I, _____, City Clerk of the City of McFarland, California, DO HEREBY CERTIFY that the foregoing resolution is a true and accurate copy of the Resolution passed and adopted by the City Council of the City of McFarland on the date and by the vote indicated herein.

Francisca Alvarado, City Clerk

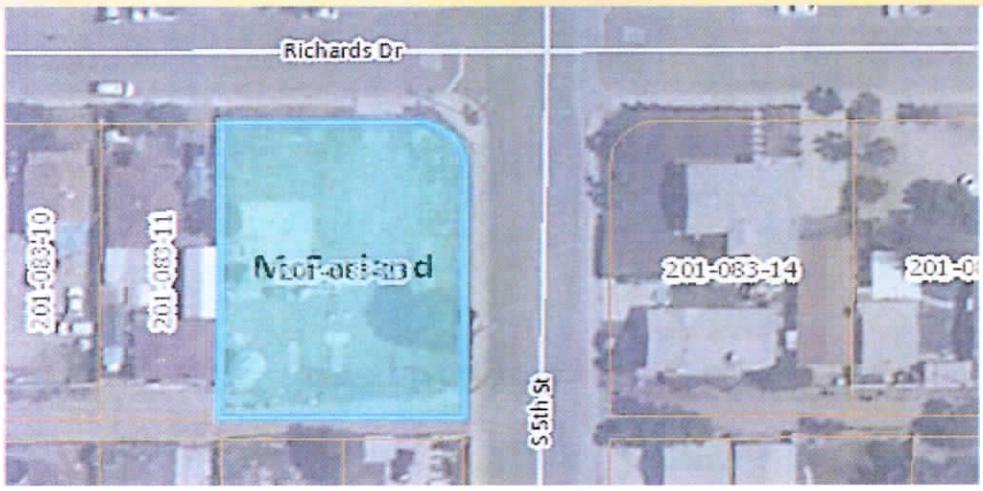
EXHIBIT A

Surplus Land

#	APN	Acres.		Reason	Location
2	201-604-03-0	0.18 ac.	Well facility	Abandoned well/ no backfill	778 Taylor Ave.
3	201-060-42-3	1.11 ac.	vacant lot	No intention to develop	Perkins Ave.
4	201-140-24-1	0.10 ac.	Well facility	Abandoned well/completed	Mr. Arbor
5	201-140-23-3	0.25 ac.	Well facility	Abandoned well/completed	Mt. Arbor
6	201-083-23-5	13,403.91 sq. ft	Well facility	Abandoned well/completed	Richards/5th

SURPLUS LAND

6



APN: 201-083-23-5
Size: 13,403.91 sq. ft
Reason: Well facility Abandoned well/completed
Location: Richards/5th

2



APN: 201-604-03-0
Size: 0.18 ac.
Reason: Well facility Abandoned well/ no backfill
Location: 778 Taylor Ave.

3



APN: 201-060-42-3
Size: 1.11 ac.
Reason: vacant lot No intention to develop
Location: Perkins Ave.

4



APN: 201-140-24-1
Size: 0.10 ac.
Reason: Well facility Abandoned well/completed
Location: Mr. Arbor

5



APN:	201-140-23-3
Size:	0.25 ac.
Reason:	Well facility Abandoned well/completed
Location:	Mt. Arbor

THE CITY OF McFarland
TRADITION • UNITY • EXCELLENCE

401 W. Kern Avenue
McFarland, CA 93250
661-792-3091 Office
661-792-3093 Fax

TO: Mayor and City Council

FROM: Kenny Williams, Chief of Police / City Manager

DATE: April, 14 2022

SUBJECT: City Cameras

RECOMMENDATION:

Staff recommends the City Council discuss and approve the proposal to install nine HD network cameras at various locations throughout the city of McFarland.

BACKGROUND:

Throughout 2020 and 2021, the city experienced 4 homicides, 208 assaults, 44 catalytic convertor thefts, and numerous other crimes. When these crimes are committed, the police respond and handle the investigation by following up on each lead with the hopes of identifying and arresting the suspect(s).

In the absence of investigative leads, many cases become unsolvable and often set dormant for years. Excluding homicides, normal cases have a statute of limitations that requires prosecution within a certain time frame. Once the statute of limitations has expired, cases can no longer be prosecuted, and the suspect cannot be charged with the offense.

Having more investigative tools can assist in identifying and locating the suspects involved in the various crimes. Fingerprints, DNA, video footage and photographs are all examples of evidence that can help identify the perpetrator and assist in the apprehension and prosecution of the suspect (s).

Positioning cameras at strategic positions throughout the city of McFarland will help officers identify persons involved in shootings and other crimes committed against visitors and community members. The staff has examined the areas of the city in which cameras could be installed which would provide the best benefit for the costs. These locations have been chosen based on the most efficient and effective methods to cover the entry and exit points of the city of McFarland.

The staff has decided that nine High-Definition cameras would best solution for the city. Cameras that will integrate into the current city's system and allow for recording and retrieving the video footage would best fit the needs of the city.

COSTS:

The City has been provided a quote from American Office Solution with is the cities I.T vendor. The quote includes (9) nine, 5 Megapixel outdoor High-Definition network cameras including all equipment necessary to install and integrate the cameras into the city's existing cameras system.

The costs are as follows:

- Cameras and all parts…… $13,663
- Labor …… $5,000
- Sales tax…….. $1,086

PROBLEMS:

Although (9) nine cameras will increase the city's ability to deter and solve crimes, additional areas of the city would benefit from the installation of cameras.

SOLUTIONS:

The staff believes the installation of these (9) nine cameras will assist staff in determining the need and the locations for additional cameras. If further cameras are warranted, staff will analyze the data and bring another proposal to the council at a later time.

FISCAL IMPACT:

The total cost to purchase and install (9) nine cameras is $ 19,749. However, there will be no impact on the general fund as the cameras will be purchased with the ARPA funds.

ATTACHMENT:

American Office Solutions Quote.
Resolution No. 2022-0023

RESOLUTION NO. 2022-0023

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING AN ADDITIONAL ALLOCATION OF FUNDS FROM ARPA FOR THE PURCHASE AND INSTALLATION OF NINE HD NETWORK CAMERAS WITHIN THE CITY OF MCFARLAND.

WHEREAS, the City Council of the City of McFarland has approved a fiscal year budget for 2021/2022; and

WHEREAS, the current budget does not allocate funds for the purchase and installation of cameras for security purposes.

WHEREAS, a one time allocation in the amount of $19,749 is needed to add nine cameras through various areas of the city to increase public safety.

WHEREAS, the City desires to allocate an additional $19,749 to the General Fund for the purchase and installation of nine cameras to improve public safety.

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of McFarland that it hereby finds and determines as follows:

1) The foregoing recitals are true and correct and incorporated herein as if set forth in full.

2) An additional $19,749 shall be allocated to the budget line for the purchase and installation of nine cameras from the City's General Fund.

3) The increased allocation shall be in full force and effect should the City approve any continuing resolutions pending approval of the 2022/2023 fiscal year budget.

4) The City Manager is hereby authorized and directed to increase the General Fund by $19,749 for the purchase and installation of nine cameras.

5) The City Clerk shall certify to the passage and adoption of this resolution.

6) This resolution is effective immediately.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of McFarland on the 14th day of April 2022 by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

ATTEST:

_____
Francisca Alvarado, City Clerk

CITY OF MCFARLAND:

_____
Sally Tafoya, Mayor

I, _____, City Clerk of the City of McFarland, California, DO HEREBY CERTIFY that the foregoing resolution is a true and accurate copy of the Resolution passed and adopted by the City Council of the City of McFarland on the date and by the vote indicated herein.

_____
Francisca Alvarado, City Clerk

American Office Solutions LLC
Estimate

Prepared for:

Kenny Williams
City of McFarland Police Department
401 West Kern Avenue
McFarland, CA 93250
United States

Prepared by:

Jeff Jones
American Office Solutions LLC
819 18th Street, Bakersfield, CA 93301

Date Prepared:

12/28/2021

Corporate Headquarters
819 18th Street, Bakersfield, CA 93301
(661) 869-1001 **P**
www.aoffs.com

12/28/2021

Kenny Williams
City of McFarland Police Department
401 West Kern Avenue
McFarland, CA 93250
United States

Dear Kenny:

Here is the quote you requested.

Upon review, if you would like us to modify any of the contents of this proposal please feel free to contact me and I will address your requests.

Best Regards,

Jeff Jones
American Office Solutions LLC
jeff@aoffs.com
(661) 869-1001

Solution Summary

QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1	Vivotek ND9541P Network Video Recorder - Network Video Recorder - HDMI 	$1,033.50	$1,033.50
4	WD Purple WD121PURZ 12 TB Hard Drive - 3.5" Internal - SATA (SATA/600) - Network Video Recorder Device Supported - 7200rpm - 3 Year Warranty 	$422.50	$1,690.00
5	Ubiquiti Managed PoE+ Gigabit Switch with SFP - 8 Ports - Manageable - Gigabit Ethernet - 10/100/1000Base-TX, 1000Base-X - 2 Layer Supported - Modular - 2 SFP Slots - Twisted Pair, Optical Fiber - Standalone, Desktop, Wall Mountable 	$234.00	$1,170.00

1	MikroTik wAP 60Gx3 AP 	$227.50	$227.50
3	MikroTik LHG 60g	$180.70	$542.10
1	Ubiquiti LTU LR LTU-LR 600 Mbit/s Wireless Access Point - 5 GHz - 1 x Network (RJ-45) - Gigabit Ethernet - PoE Ports - Pole-mountable 	$165.04	$165.04
2	Mikrotik SXTsq 5 ac-US (RBSXTsqG-5acD) 2-UNITS outdoor 5Ghz 802.11ac wireless device with an integrated antenna, perfect for point-to-point links, includes one 10/100/1000 Mbit Ethernet 	$68.90	$137.80

9	Vivotek FD9387-HTV-A 5 Megapixel Outdoor HD Network Camera - Monochrome, Color - Dome - 164.04 ft - H.265, H.264, MJPEG - 2560 x 1920 - 2.70 mm- 13.50 mm Zoom Lens - 5x Optical - CMOS - Conduit Mount, Bracket Mount 	$513.50	$4,621.50
9	WALL MOUNT BRACKET ADAPTER AM-520	$39.00	$351.00
9	POLE MOUNT POLE DIAMETER 15.2 4 89MM	$50.70	$456.30
9	OUTDOOR ADAPTER WITH 3/4 NPT FEMALE THREAD	$46.80	$421.20
4	2 inch conduit for mounting 	$51.97	$207.88

5	AWclub 11.2"x11.2"x5.2"(280mm x 280mm x 130mm) Dustproof IP67 Junction Box DIY Case Enclosure Gray 	$49.39	$246.95
5	Right Angle Power Cord - NEMA 5-15P 	$20.79	$103.95
4	J Mounts	$22.26	$89.04
15	Cable Run	$100.00	$1,500.00
1	Miscellaneous Parts	$200.00	$200.00
5	Programming Labor	$100.00	$500.00
50	Installation Labor	$100.00	$5,000.00

SUBTOTAL	$18,663.76
SALES TAX	$1,086.01
TOTAL (ONE TIME)	$19,749.77
YEARLY LICENSE	$0.00

To place order please Sign and Date

City of McFarland Police Department

City of McFarland Police Department
401 West Kern Avenue
McFarland, CA 93250
United States

_____
Signature

_____ _____
Printed Name/Title Date

THE CITY OF McFarland
TRADITION • UNITY • EXCELLENCE

401 W. Kern Avenue
McFarland, CA 93250
661-792-3091 Office
661-792-3093 Fax

TO: Mayor and City Council

FROM: Chief of Police / City Manager Kenny Williams

DATE: April 14, 2022

SUBJECT: Dispatcher Switch.

RECOMMENDATION:

Staff recommends the City Council discuss and approve the purchase and installation of a new switch for the police dispatcher computers.

BACKGROUND:

The current dispatcher switch which connects the dispatcher records information system and other software to the network is over thirteen years old. Because of the age of the system there are often problems which cause the system to loss connection at which point it is problematic to reconnect.

Recently the city experienced a power outage which immediately removed dispatchers access to the police records information system. This precluded the police dispatchers from properly recording calls for service and integrating those calls into the Mobile data computer system. Because the system did not reconnect automatically there were two days of data that were not integrated into the records information system. This is problematic as police records are mandated by law to be retrievable.

Staff communicated with American Office Solutions (AOS), who indicated the existing switch does not automatically switch the dispatcher's records information system back on and therefore it requires a manual reboot to do so.

AOS indicated that installing a new switch would allow for the automation component which allows the switch to reboot the systems without waiting for a manual reboot.

COSTS:

The City has been provided a quote from American Office Solution with is the cities I.T. vendor. The quote includes the hardware to allow the installation of a new switch as well as the labor.

The costs are as follows:

- New Switch and all parts……$2121
- Sales tax……..$174

PROBLEMS:

None

SOLUTIONS:

None

FISCAL IMPACT:

The total costs for the purchase and installation of the dispatcher switch is $ 2295, However, there will be no impact to the general fund as the switch will be purchased with ARPA funds.

ATTACHMENT:

American Office Solutions Quote.
Resolution No. 2022-0024

RESOLUTION NO. 2022-0024

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING AN ADDITIONAL ALLOCATION OF FUNDS FROM ARPA FOR THE PURCHASE AND INSTALLATION OF A NEW DISPATCHER SWITCH.

WHEREAS, the City Council of the City of McFarland has approved a fiscal year budget for 2021/2022; and

WHEREAS, the current budget does not allocate funds for the purchase and installation of a new dispatcher switch.

WHEREAS, a one time allocation in the amount of $2295 is needed to replace the dispatcher switch with a new switch.

WHEREAS, the City desires to allocate an additional $2295 to the General Fund for the purchase and installation of a new dispatcher switch.

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of McFarland that it hereby finds and determines as follows:

1) The foregoing recitals are true and correct and incorporated herein as if set forth in full.

2) An additional $ 2295. shall be allocated to the budget line for the purchase and installation of a dispatcher switch from the City's General Fund.

3) The increased allocation shall be in full force and effect should the City approve any continuing resolutions pending approval of the 2022/2023 fiscal year budget.

4) The City Manager is hereby authorized and directed to increase the General Fund by $2295 for the purchase and installation of a new dispatcher switch.

5) The City Clerk shall certify to the passage and adoption of this resolution.

6) This resolution is effective immediately.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of McFarland on the 14th day of April 2022 by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

ATTEST:

_____
Francisca Alvarado, City Clerk

CITY OF MCFARLAND:

_____
Sally Tafoya, Mayor

I, _____, City Clerk of the City of McFarland, California, DO HEREBY CERTIFY that the foregoing resolution is a true and accurate copy of the Resolution passed and adopted by the City Council of the City of McFarland on the date and by the vote indicated herein.

_____
Francisca Alvarado, City Clerk

American Office Solutions LLC
Estimate

Prepared for:

Kenny Williams
City of McFarland Police Department
401 West Kern Avenue
McFarland, CA 93250
United States

Prepared by:

Jeff Jones
American Office Solutions LLC
819 18th Street, Bakersfield, CA 93301

Date Prepared:

9/17/2021

Corporate Headquarters
819 18th Street, Bakersfield, CA 93301
(661) 869-1001 **P**
www.aoffs.com

9/17/2021

Kenny Williams
City of McFarland Police Department
401 West Kern Avenue
McFarland, CA 93250
United States

Dear Kenny:

Here is the quote you requested.

Upon review, if you would like us to modify any of the contents of this proposal please feel free to contact me and I will address your requests.

Best Regards,

Jeff Jones
American Office Solutions LLC
jeff@aoffs.com
(661) 869-1001

Solution Summary

QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1	ARUBA 6000 48G CL4 4SFP SWCH US EN 	$2,121.00	$2,121.00

SUBTOTAL	$2,121.00
SALES TAX	$174.98
TOTAL (ONE TIME)	$2,295.98
YEARLY LICENSE	$0.00

To place order please Sign and Date

City of McFarland Police Department

City of McFarland Police Department
401 West Kern Avenue
McFarland, CA 93250
United States

_____
Signature

_____ _____
Printed Name/Title Date

CITY OF MCFARLAND

MEMORANDUM

TO: HONORABLE MAYOR AND COUNCIL MEMBERS

FROM: Peter Cosentini, Assistant City Manager

DATE: February 24, 2022

SUBJECT: Cannabis Ordinance

Recommendation:

1. It is recommended that the City Council authorize the staff to proceed with the creation of a Cannabis Ordinance that would potentially apply to the current City limits and/or the LAFCO approved annexation area.
2. It is further recommended that the City Council approve using Approach 2, identified in this staff report, to create a Cannabis Ordinance by contractually engaging green light who will provide a financial deposit to cover costs of the process for something of comparable value.

Discussion:

The cannabis industry is a new revenue stream available to Cities, with the approval of proposition 64 in 2016. The City would tax the new industry in the sale, growth, manufacturing, testing and transportation of Cannabis. The City of Arvin received approximately $500,000 in new revenue from the cannabis industry in their community.

Since our last discussion of this issue at our February 24th City Council meeting, I have had an opportunity to discuss with our City Attorney the issues that concerned him. Nathan was concerned with several issues. Nathan wanted to make sure that a future City consultant would not have a conflict of interest in drafting a Cannabis Ordinance due to his ties to cannabis businesses. Nathan also wanted to make sure the City was getting the best financial deal possible. Nathan also wanted to make sure the consultant would not receive a royalty from drafting the Cannabis Ordinance.

I discussed the conflict-of-interest issue with Mr. David McPherson. He said he did not generally know greenlight and does not have a working relationship with them. His firm, HDL, only works for governmental clients. He operates by using best practices and following the law.

I asked Mr. McPherson if he would want some type of royalty for the writing of our Cannabis Ordinance. He said no. He would work on a time and materials basis only. This time and

materials approach would be used for the initial drafting of the Ordinance and processing Greenlight's cannabis application. Time and materials would also be the payment method if we decided to use his firm to vet future applicants for cannabis licenses.

Nathan and I discussed two approaches.

Approach 1
Approach 1 is a cost recovery approach. In this approach, the City puts up the money necessary to produce the Cannabis Ordinance, the environmental impact report and the Marijuana Management Plan. The Marijuana Management plan is the process by which you vet and process a cannabis business application. In this approach, you identify a certain number of square feet for cannabis businesses in town. If a business takes up 5% of the total square footage designated for cannabis businesses, then they pay for 5% of the total costs fronted by the city to create the Cannabis Ordinance and Marijuana Management Plan. The weakness in this approach is that the City is fronting the money and if the number of Cannabis businesses coming to the community is insufficient to occupy 100% of the square footage dedicated for cannabis businesses, then the City pays for the unused portion. The City is taking the risk under this scenario.

Approach 2
The way the second approach would work is that Greenlight would enter into an agreement with the City and deposit sufficient funds to pay for all the costs of creating a Cannabis Ordinance and Marijuana Management Plan. These costs would include the costs of having Mr. McPherson help the City write a Cannabis Ordinance and a Marijuana Management Plan. These costs would also include the costs of the Environmental Impact Report, City Attorney fees for legal advice through the process and drafting the agreement with Greenlight. The costs would also cover the costs of Mr. McPherson processing and vetting Greenlight's cannabis application. In return, Greenlight will receive something of equivalent value, which could take the form of a cannabis license or licenses and other possible considerations as discussed below.

Another way to make a good faith effort to make it more equitable for Greenlight is some kind of reimbursement method. This could take several forms depending on the circumstances that arise from the process. For example, let's say when Greenlight leads the way to create a Cannabis Ordinance and Marijuana Management Plan, 5 other firms show up to take advantage of the newly adopted City Cannabis Ordinance, so they can open up cannabis businesses in the City. We could require each of these firms to pay the City, as part of their cannabis application process, a certain amount of money that the City would reimburse to Greenlight for fronting the funds necessary to create the Cannabis Ordinance.

Another option that may emerge in the process is if no other firms show up to pursue a cannabis license when Greenlight receives their license under the newly created Cannabis Ordinance. Under these circumstances, the City could designate a certain duration of time within which another firm filing a cannabis application would be subject to a payment to the City that would, in turn, be reimbursed to Greenlight to offset Greenlight's upfront costs in creating the Cannabis Ordinance. After the certain duration of time expires, businesses applying for cannabis licenses would not be subject to this kind of charge.

Another way to show good faith in trying to help Greenlight recoup the cost of their deposit is to set up a credit toward their annual application fee. The City will set an annual application fee and process to perform ongoing oversite of McFarland's cannabis businesses to monitor their activities in compliance to local regulations and state law. This would include an annual inspection, an auditing of their books, reviewing of ongoing security requirements and the like. We will establish a fee for this annual monitoring of cannabis businesses. Part of the fee will be a payment to the City, so the City may give Greenlight a credit voucher toward their annual application fee. This is yet another way to show good faith to Greenlight.

The substantive difference between Approach 1 and Approach 2 is who puts up the money and risks not getting it back. In the first approach, the City puts up the money and is taking the risk of losing those funds. In the second approach the applicant, Greenlight, is fronting the money and taking the risk of not getting it back. Therefore, staff is recommending we go with Approach 2.

Another reason why I am more comfortable with approach 2, is that both Nathan and I only have cannabis experience in one City. Mr. McPherson is a renowned authority in the cannabis industry. He has been involved in the industry since the 1990's when California was the first State to pass a medical marijuana ballot measure to allow medical marijuana. When the State was writing the State regulations on cannabis, David was asked to help.

The City's Challenging Fiscal Environment

The City is facing several difficult fiscal challenges, at this point in our history. We have a new Fire Service contract that will raise its current cost of $400,000 annually by approximately $200,000 per year for six years to a total of $1.6 million dollars annually. In addition to this challenge, the city has received a cops grant that fund 7 officers for $885,950 per year. The grant will last for three years and then the City is obligated to pay for the 7 officers for two years at a cost of $885,950 per year. We are currently in the second year of the three-year grant. There may be an opportunity to extend the grant for 3 more years.

These two obligations pose a significant financial challenge for the City. To help manage these financial challenges, it would be beneficial to bring in a new revenue stream from the new industry.

The Council chose not sell the 30 acers at the Wastewater Treatment Plant, at a prior City Council meeting. One of the proposed uses for the 30 acers was to place cannabis businesses in this area. This had some appeal because cannabis businesses can be viewed as unpopular by some. However, because this option is no longer available, we wanted to make sure that Council was opened to considering placing cannabis businesses in other areas of the City limits and/or the soon to be approved LAFCO annexation areas. During the construction of the Cannabis Ordinance, we will have several community/Council meetings to work out where the cannabis businesses will be placed so that the Council and the community are comfortable with the locations. We can also consider safety zones around child sensitive areas. A safety zone is where we say a cannabis business cannot be with 500 feet of a school and other such child-oriented facilities.

Opening up other parts of the City to cannabis will be important in our discussions with Greenlight because they have asked about other placement opportunities, because of the closer proximity of necessary infrastructure like electricity and water.

Fiscal Impact: There are no fiscal impacts to the City in approach 2, for the implementation of the Cannabis Ordinance.

Attachments:

None

CITY OF MCFARLAND

MEMORANDUM

TO: HONORABLE MAYOR AND COUNCIL MEMBERS

FROM: Peter Cosentini, Assistant City Manager

DATE: February 24, 2022

SUBJECT: Cannabis Ordinance

Recommendation:

1. It is recommended that the City Council authorize the staff to proceed with the creation of a Cannabis Ordinance that would potentially apply to the current City limits and/or the LAFCO approved annexation area.
2. It is further recommended that the City Council approve using Approach 2, identified in this staff report, to create a Cannabis Ordinance by contractually engaging green light who will provide a financial deposit to cover costs of the process for something of comparable value.

Discussion:

The cannabis industry is a new revenue stream available to Cities, with the approval of proposition 64 in 2016. The City would tax the new industry in the sale, growth, manufacturing, testing and transportation of Cannabis. The City of Arvin received approximately $500,000 in new revenue from the cannabis industry in their community.

Since our last discussion of this issue at our February 24th City Council meeting, I have had an opportunity to discuss with our City Attorney the issues that concerned him. Nathan was concerned with several issues. Nathan wanted to make sure that a future City consultant would not have a conflict of interest in drafting a Cannabis Ordinance due to his ties to cannabis businesses. Nathan also wanted to make sure the City was getting the best financial deal possible. Nathan also wanted to make sure the consultant would not receive a royalty from drafting the Cannabis Ordinance.

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Approach 1 is a cost recovery approach. In this approach, the City puts up the money necessary to produce the Cannabis Ordinance, the environmental impact report and the Marijuana Management Plan. The Marijuana Management plan is the process by which you vet and process a cannabis business application. In this approach, you identify a certain number of square feet for cannabis businesses in town. If a business takes up 5% of the total square footage designated for cannabis businesses, then they pay for 5% of the total costs fronted by the city to create the Cannabis Ordinance and Marijuana Management Plan. The weakness in this approach is that the City is fronting the money and if the number of Cannabis businesses coming to the community is insufficient to occupy 100% of the square footage dedicated for cannabis businesses, then the City pays for the unused portion. The City is taking the risk under this scenario.

Approach 2
The way the second approach would work is that Greenlight would enter into an agreement with the City and deposit sufficient funds to pay for all the costs of creating a Cannabis Ordinance and Marijuana Management Plan. These costs would include the costs of having Mr. McPherson help the City write a Cannabis Ordinance and a Marijuana Management Plan. These costs would also include the costs of the Environmental Impact Report, City Attorney fees for legal advice through the process and drafting the agreement with Greenlight. The costs would also cover the costs of Mr. McPherson processing and vetting Greenlight's cannabis application. In return, Greenlight will receive something of equivalent value, which could take the form of a cannabis license or licenses and other possible considerations as discussed below.

Another way to make a good faith effort to make it more equitable for Greenlight is some kind of reimbursement method. This could take several forms depending on the circumstances that arise from the process. For example, let's say when Greenlight leads the way to create a Cannabis Ordinance and Marijuana Management Plan, 5 other firms show up to take advantage of the newly adopted City Cannabis Ordinance, so they can open up cannabis businesses in the City. We could require each of these firms to pay the City, as part of their cannabis application process, a certain amount of money that the City would reimburse to Greenlight for fronting the funds necessary to create the Cannabis Ordinance.

Another option that may emerge in the process is if no other firms show up to pursue a cannabis license when Greenlight receives their license under the newly created Cannabis Ordinance. Under these circumstances, the City could designate a certain duration of time within which another firm filing a cannabis application would be subject to a payment to the City that would, in turn, be reimbursed to Greenlight to offset Greenlight's upfront costs in creating the Cannabis Ordinance. After the certain duration of time expires, businesses applying for cannabis licenses would not be subject to this kind of charge.

Another way to show good faith in trying to help Greenlight recoup the cost of their deposit is to set up a credit toward their annual application fee. The City will set an annual application fee and process to perform ongoing oversite of McFarland's cannabis businesses to monitor their activities in compliance to local regulations and state law. This would include an annual inspection, an auditing of their books, reviewing of ongoing security requirements and the like. We will establish a fee for this annual monitoring of cannabis businesses. Part of the fee will be a payment to the City, so the City may give Greenlight a credit voucher toward their annual application fee. This is yet another way to show good faith to Greenlight.

The substantive difference between Approach 1 and Approach 2 is who puts up the money and risks not getting it back. In the first approach, the City puts up the money and is taking the risk of losing those funds. In the second approach the applicant, Greenlight, is fronting the money and taking the risk of not getting it back. Therefore, staff is recommending we go with Approach 2.

Another reason why I am more comfortable with approach 2, is that both Nathan and I only have cannabis experience in one City. Mr. McPherson is a renowned authority in the cannabis industry. He has been involved in the industry since the 1990's when California was the first State to pass a medical marijuana ballot measure to allow medical marijuana. When the State was writing the State regulations on cannabis, David was asked to help.

The City's Challenging Fiscal Environment

The City is facing several difficult fiscal challenges, at this point in our history. We have a new Fire Service contract that will raise its current cost of $400,000 annually by approximately $200,000 per year for six years to a total of $1.6 million dollars annually. In addition to this challenge, the city has received a cops grant that fund 7 officers for $885,950 per year. The grant will last for three years and then the City is obligated to pay for the 7 officers for two years at a cost of $885,950 per year. We are currently in the second year of the three-year grant. There may be an opportunity to extend the grant for 3 more years.

These two obligations pose a significant financial challenge for the City. To help manage these financial challenges, it would be beneficial to bring in a new revenue stream from the new industry.

The Council chose not sell the 30 acers at the Wastewater Treatment Plant, at a prior City Council meeting. One of the proposed uses for the 30 acers was to place cannabis businesses in this area. This had some appeal because cannabis businesses can be viewed as unpopular by some. However, because this option is no longer available, we wanted to make sure that Council was opened to considering placing cannabis businesses in other areas of the City limits and/or the soon to be approved LAFCO annexation areas. During the construction of the Cannabis Ordinance, we will have several community/Council meetings to work out where the cannabis businesses will be placed so that the Council and the community are comfortable with the locations. We can also consider safety zones around child sensitive areas. A safety zone is where we say a cannabis business cannot be with 500 feet of a school and other such child-oriented facilities.

Opening up other parts of the City to cannabis will be important in our discussions with Greenlight because they have asked about other placement opportunities, because of the closer proximity of necessary infrastructure like electricity and water.

Fiscal Impact: There are no fiscal impacts to the City in approach 2, for the implementation of the Cannabis Ordinance.

Attachments:

None

THE CITY OF McFarland
TRADITION • UNITY • EXCELLENCE

401 W. Kern Avenue
McFarland, CA 93250
661-792-3091 Office
661-792-3093 Fax

TO: Mayor and City Council

FROM: Chief of Police / City Manager Kenny Williams

DATE: April 4, 2022

SUBJECT: Finance Director Contract

RECOMMENDATION:

Staff recommends the City Council approve the contract to hire Mr. Charles Baldwin as the new Finance Director for the city of McFarland.

BACKGROUND:

As evident from the recent audits, the City's finance department needs a finance director that has the ability to provide structure and set up systems and procedures to appropriately manage the city funds and help improve the city's financial position.

The City has been operating without a Finance Director for several months. During this time, while the City continued its efforts to permanently fill this position, the former Finance Director was fulfilling the duties of the finance director.

After a lengthy recruitment and selection process the City has selected a viable candidate, Charles Baldwin. Through several rounds of negotiations, staff believes we have reached an agreement with Mr. Baldwin which is outlined in the attached contract.

COSTS:

The contract includes an annual salary of $110,000 with a $300 monthly stipend and a severance agreement for the first year of Mr. Baldwins contract. The severance package equates to six months of salary and expires after the first year of the contract.

The costs are as follows:

- Annual salary ……$110,000
- Annual cost of $300 monthly stipend……$3,600
- Annual costs of benefits ……..$28,358
- Annual 401K retirement contribution…… $11,000

PROBLEMS:

Although Mr. Baldwin is a certified Public Accountant and he has an immense amount of finance experience, he lacks experience overseeing municipality finance departments.

SOLUTIONS:

Staff believes Mr. Baldwin vast financial experience combined with him being a certified public accountant and having ran several financial intuitions will help him assimilate into the McFarland finance department very quickly. The city plans on using current staffing to help Mr. Baldwin become acclimated to the municipality finance processes.

FISCAL IMPACT:

The total annual costs for Mr. Baldwin's contract is $152,958.

ATTACHMENT:

Employment agreement (Charles Baldwin)

EMPLOYMENT AGREEMENT

This employment agreement ("Agreement") is made on this ____ day of _____ 2022, by and between the City of McFarland, a Municipal Corporation ("City"), and Mr. Charles Baldwin ("Applicant"). The City and Applicant are collectively referred to as the "Parties" where appropriate. Once effective, this Agreement shall replace and supersede any prior employment contracts or agreements between the Parties, which are hereby deemed rescinded and of no further effect, except where indicated within this Agreement.

RECITALS:

WHEREAS, the City Council now wishes to engage the services of the applicant as the City's Finance Director; and

WHEREAS, the position of Finance Director is an "at will" position, not subject to the City's personnel rules; and

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth hereinafter, the Parties mutually agree as follows:

AGREEMENT

1. **Incorporation**. The Parties incorporate the foregoing recitals as if fully set forth herein verbatim.

2. **Hire**. City acknowledges that it's hiring Applicant as its Finance Director effective May 15, 2022 ("Effective Date") pursuant to the terms and conditions of this Agreement. Applicant shall remain in the exclusive hire of City during the term of this Agreement and shall neither accept other employment nor become employed by any other employer until the end of the Term or earlier termination of this Agreement.

3. **"At-Will" Employment.** Applicant's employment with City is at the sole will, discretion and pleasure of the City. The City Manager may fix any such additional terms and conditions of employment, as they may determine from time to time, relating to Applicant's performance, provided such terms and conditions are not inconsistent with or in conflict with the provisions of this Agreement, the City Municipal Code, or any other law.

   The terms of the City's personnel rules, policies, procedures, ordinances, or resolutions (collectively "Personnel Policies") shall not apply to Applicant unless made expressly applicable, except that all policies and regulations related to the prevention of harassment, discrimination and retaliation shall apply to Applicant.

   This Agreement is not intended to, or does it confer any right to any property interest in continued employment, or any due process property right to a hearing before or after a decision by the City Manager to terminate Applicant's employment. Subject to State and Federal law, nothing contained in this Agreement shall in any way prevent, limit or otherwise interfere with the right of the City to terminate the services of Applicant.

4. **Duties.**

a. Finance Director. Employee accepts employment with the City as its Finance Director and agrees to perform all functions, duties and services as promulgated by City regulations and procedures, the City Manager, and the Finance Director job description, including, but not limited to the following:

- Implements goals, objectives, priorities, policies, and procedures of the City of McFarland and the Finance Department.
- Represents the City in interactions with the public, elected officials, coworkers, regulatory agencies, investment bankers, financial advisors, and business, professionals on a regular basis.
- Coordinates, supervises, evaluates, and ensures efficiency in the responsibilities, activities, and operations of the Finance Department.
- Supervises and evaluates department personnel, also ensuring that sufficient training and development opportunities are provided.
- Establishes and monitors management and control of the City's financial operating practices.
- Evaluates and implements internal and external audit recommendations and provides feedback to management on results.
- Structures, plans, and coordinates specific financial projects, and conducts, directs and participates in major projects to interpret and recommend financial policy for the City.
- Utilizes financial forecasts and analysis to identify future financial challenges and opportunities and identifies strategies to secure financial sustainability for the City.
- Develops, implements, and administers purchasing policies and procedures for the City, ensuring financial oversight of all City spending and appropriate accounting principles.
- Prepares and/or communicates clear, accurate and comprehensive programs, policies, reports, and recommendations to elected officials, staff, outside agencies and the community.
- Conducts organizational and administrative studies and directs complex forecasting and cost/benefit analysis and recommendations on a wide range of policies, programs, and issues.
- Engages in, performs, and supervises strategic planning to ensure the City's capacity to support organizational stability, community growth, and fiscal responsibility.
- Participates in City management staff meetings and may serve on special committees or direct the conduct of projects having a general City-wide impact.
- Initiates, maintains, and oversees a variety of files, records, and databases (electronic and hard copy) and compiles operational information and data for reports and record keeping.
- Provides filings, justifications and tracking as needed with grant obligations.

- Maintains compliance required by the State of California and the federal government.
- Translates policy statements into working procedures.
- Performs other duties as needed or assigned.

At the option of City, Employee shall serve as a representative to any other authority or agency created by or staffed by the City. Employee shall exercise such other powers and perform such other duties as the City, through the City Council or the City Manager, may from time-to-time assign.

5. **Term.** Except as hereinafter described, the term of this Agreement shall be for one year commencing on the Effective Date. The term of this contract shall automatically renew for an additional one (1) year on May 15 of each subsequent year, unless terminated pursuant to the provisions of Section 6 of this Agreement.

6. **Termination.** Applicant's "at-will" employment as Finance Director may be terminated as follows:

   a. **Resignation**. If Applicant elects to resign at any time during the term of this Agreement, he may do so upon giving City thirty (30) days' written notice. Termination pursuant to such action shall occur thirty (30) calendar days after service of said notice, or on such other date as may be agreed to by the Parties.

   b. **Retirement**. If Applicant elects to retire, he shall inform City, in writing, at least thirty (30) days prior to the effective date of such retirement. City shall cooperate fully with Employee to provide all information in a timely manner.

   c. **Termination "Without Cause."** City reserves the right to terminate this Agreement and Applicant's employment as Finance Director at any time, "without cause" or advance notice.

      i. **Severance.** In the event that Applicant is terminated "Without Cause," he shall be entitled to severance pay as follows:
         1. Month 1-6 of the Agreement:
            a. $55,000.00.
         2. Month 7-12 of the Agreement:
            a. $9,166.66 x number of months remaining in the Agreement.

      The severance pay will be in addition to pay accrued, but not remitted, prior to the notice of termination, and any accrued PTO. The severance rights provided in this Paragraph 6(c)(i) shall constitute the sole and only entitlement of Employee with respect to severance pay in the event of the termination other than for cause or by expiration of this Agreement. Applicant expressly waives any and all other rights with respect to severance pay except as provided herein, including any and all rights he may have to a separation payment pursuant to any joint powers insurance

authority memorandum of liability coverage then in effect. Any and all severance rights are conditioned upon and in consideration for execution of the Standard "Agreement of Separation, Severance, and General Release" attached hereto in form only as Exhibit "B."

d. Termination "With Cause." The City reserves the right to terminate this Agreement and Applicant's employment at any time, "with cause." "Cause" shall include, but not be limited to:

i. Willful misconduct or gross negligence;
ii. Theft, or attempted theft, financial mismanagement, material dishonesty, willful or persistent breach of duties, engaging in conduct tending to bring embarrassment or disrepute to the City, unauthorized or excessive absences;
iii. A formal investigation commissioned by the City Council and conducted by a third-party investigator hired by the City Council in which the City Council has determined that the Employee has engaged in unlawful discrimination or harassment of Employees or any third party while on City Premises or on City time. City is not required to wait until Employee has exhausted any appeal rights prior to terminating this Agreement "for cause;"
iv. Conviction of any felony, or for any misdemeanor involving moral turpitude, corruption or dishonesty. "Conviction" shall include any guilty plea, plea of nolo contendre, or any other disposition other than a dismissal of charges or acquittal. City is not required to wait until Employee has exhausted any appeal rights prior to terminating this Agreement "for cause;"
v. Applicant's death; or
vi. If Applicant is determined by a court of competent jurisdiction of the State of California's Fair Political Practices Commission to have knowingly and unlawfully participated in a governmental decision I which he had a conflict of interest as defined in Government Code Section 87100 et seq. or Government Code Section 1090 et seq.;
vii. Applicant's permanent disability if such disability precludes Applicant from performing his essential job duties for more than six (6) cumulative months after attempts at a reasonable accommodation pursuant to the Americans with Disabilities Act and/or California's Fair Employment & Housing Act.

7. <u>Salary and Benefits.</u> Applicant's salary and other benefits for all work or services called for under this Agreement shall be as follows:

A. <u>Salary</u>. Commencing on the Effective Date, Applicant's annual salary shall be one hundred ten thousand dollars ($110,000.00), which shall be paid in bi-weekly pay periods. Any salary increases shall be implemented by written amendment to this Agreement and upon approval by the City Council.

B. <u>Vacation</u>. Applicant shall receive eighty (80) hours of vacation leave, commencing on the first day of each year of his employment. At the end of each year of Applicant's employment, any unused vacation hours shall be cashed out prior to his accrual of an additional eighty (80) hours.

C. **Sick Leave**. Applicant shall accrue eight (_8_) hours of sick leave per month of employment. The balance of sick leave shall not exceed any maximum accrual amounts set forth in the City's Employee Handbook. Unused sick leave will not be paid out upon termination or expiration of this Agreement.

D. **Administrative Leave.** Applicant shall receive fifty-six (40) hours of administrative leave per year, commencing on the first day of each year of his employment. Administrative leave will not carry over calendar years. It must be used within the year of accrual, or the leave will be lost. In the event of termination of this Agreement, no remaining portion of the administrative leave shall be subject to a buyout.

E. **Holiday and Other Leaves.** Applicant shall receive the same leaves, holidays, and other time off as provided to other employees at the City.

F. **Health Insurance Benefits.** City shall provide health insurance coverage for Applicant and his family consistent with the health insurance benefits provided to City employees. Applicant may waive this health insurance coverage so long as he has proof of other group coverage in accordance with the Affordable Care Act, (i.e. is not purchasing coverage from the exchange).

G. **Term Life Insurance**. The City shall pay the premiums for a group life insurance policy consistent with the City employee handbook. Applicant shall name the beneficiary of the life insurance policy, provided said beneficiary has and maintains an insurable interest in Applicant.

H. **Stipend**. City shall provide $300 per month for travel.

I. **Cell Phone.** City shall provide Applicant with a cell phone purchased by City to be used by Applicant exclusively for performance of his duties under this Agreement and City shall pay the monthly charges for the cell phone data usage. Alternatively, at Applicant's election, City will pay Applicant an allowance of $50.00 per month for use toward his personal cell phone and data plan. Applicant acknowledges that use of the City provided cell phone, or his personal cell phone, for City business may be subject such usage to disclosure under the California Public Records Act.

J. **Laptop.** City shall provide Applicant with a laptop to use during his employment. Applicant shall return the laptop when he ceases his employment with the City. The laptop shall be used exclusively for City business.

K. **Retirement**. City represents and Applicant acknowledges that City is not a CalPERS agency for retirement purposes. The City shall contribute the equivalent of ten percent (10%) of Applicant's salary annually to Applicant's 401(k) or deferred compensation retirement account. Applicant shall choose whether he wants the contribution made to his 401(k) or deferred compensation account, or a combination of both.

L. Professional Development. Subject to prior approval of the City Manager, City shall pay for Applicant's continued professional participation, growth, enhancement or for the good of the City. Subject to the prior approval of the City Manager, City shall budget and pay the attendance of Employee's attendance at professional organization conferences annually, including those which will allow applicant to maintain his licenses as a certified public accountant.

M. Expenses. City shall reimburse Applicant for all reasonable out-of-pocket expenses incurred while performing the duties described in this Agreement, which may include travel, meals, lodging expenses, and parking fees. Applicant shall submit a receipt and a description of the expenses to the City's Finance Director within thirty (30) days of the date each expense is incurred as a condition of obtaining reimbursement.

8. Bonding and Indemnification. City shall bear the full costs of any fidelity or other bond required of Applicant under any law or ordinance. City shall defend, save harmless and indemnify Applicant from any and all demands, claims, suits, actions, or other legal proceedings ("Claims") brought against his in his individual capacity or in his official capacity as Assistant City Manager, provided the Claims arise while Applicant is acting within the course and scope of his employment and provided he did not act or fail to act because of actual fraud, corruption or malice. The provision shall not extend to claims brought by City itself or where indemnity is otherwise prohibited by law.

9. Evaluation. The City Manager shall evaluate Applicant after the first six (6) months of the Term of this Agreement. The City Manager, with the input of Applicant, will develop the criteria upon which Applicant will be evaluated. The City Manager shall have the right to establish the format and the forms to be used. Applicant shall be responsible for initiating the evaluation.

10. Notices. Notices pursuant to this Agreement shall be deemed to be given when personally delivered to the party to whom directed or when deposited in the United States Mail, postage prepaid or by electronic mail (Email) or, if notice is given to City, if sent by confirmed facsimile, addressed as follows:

City	**Applicant**
City Manager, City of McFarland	Charles Baldwin
401 West Kern Avenue	33609 Globe Drive
Email: Kwilliams@mcfarlandcity.org	Springville, Ca 93265
	chuck_baldwin@mac.com

Either party may change his or its address by providing written notice to the other party in the manner described herein.

11. General Provisions.

A. Entire Agreement. This Agreement constitutes the complete understanding between the Parties, is fully integrated, and supersedes any and all prior agreements – including the Parties' Consulting Agreement – promises, representations, or inducements, no matter their form, concerning the subject matter of this Agreement. No subsequent agreements, promises, representations, or inducements will be binding unless recorded in a written document, which specifically references this Agreement and is signed by the Parties or their authorized representatives. The Parties acknowledge that this Agreement may be used as evidence in any subsequent proceeding in which either Party alleges a breach of this Agreement or seeks to enforce its terms, provisions, obligations, or as compelled by law.

B. Captions. The headings used in this Agreement are inserted for reference purposes only and shall not be deemed to limit or affect in any way the meaning or interpretation of any of the terms or provisions of this Agreement.

C. Severability. If any provision contained in this Agreement is held invalid or unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall be deemed severable and shall not be affected thereby and same shall remain in full force and effect.

D. Amendment. This Agreement may only be amended by a writing executed by all parties.

E. Governing Law and Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of California. Any action or motion to enforce the terms or conditions of this Agreement shall be brought only in the Superior Court of California for the County of Kern.

F. Waiver. Waiver by any party of any breach of this Agreement by the other party, whether such waiver be direct or implied, shall not be construed as a continuing waiver or consent to any subsequent breach of this Agreement on the part of the other party.

G. Further Assurances. Each party shall execute and deliver such papers, documents, and instruments, and perform such acts as are necessary or appropriate, to implement the terms of this Agreement and the intent of the parties to this Agreement.

H. Assignment. Neither this Agreement, nor any interest in it, may be assigned or transferred by any party without the prior written consent of all the parties. Any such assignment will be subject to such terms and conditions as City may choose to impose.

I. Binding Effect. The rights und obligations of this Agreement shall inure to the benefit of, and be binding upon, the parties to the contract and their heirs, administrators, executors, personal representatives, successors and assigns, and whenever the context so requires, the masculine gender and includes the feminine and neuter, and the singular

number includes the plural. This Agreement may be executed in any number of counterparts, each of which shall be considered as an original and be effective as such.

J. **Merger And Modification**. This contract sets forth the entire Agreement between the parties and supersedes all other oral or written representations. This contract may be modified only in a writing approved by the City Council and signed by all the parties.

K. **Attorneys' Fees.** If either party commences any action or proceeding relating to this Agreement or the enforcement of any provision of this Agreement against the other party, the prevailing party, in such action or proceeding, shall be entitled to recover reasonable attorneys' fees, costs, and all other litigation costs.

L. **Execution**. This Agreement is effective May 1, 2022. It is the product of negotiation and all parties are equally responsible for authorship of this Agreement. Section 1654 of the California Civil Code shall not apply to the interpretation of this Agreement.

M. **Non-Interest**. Except for Applicant, no officer or employee of City shall hold any interest in this Agreement (California Government Code section 1090).

N. **Counterparts.** This Agreement may be executed in counterparts and the respective signature pages for each party may thereafter be attached to the body of this Agreement to constitute one integrated Agreement which is as fully effective and binding as if the entire document had been signed at one time.

O. **Acknowledgement of Statutes That May Affect Employment Relationship.** City and Employee acknowledge that, in addition to the statutes previously referenced in this Agreement, the following statutes shall govern this employment relationship under the circumstances described in the statutes:

a. Government Code section 53243 states that on or after January 1, 2012, any contract executed or renewed between a local agency, such as the City, and an officer or Employee of a local agency, such as Applicant, that provides paid leave salary offered by the local agency to the officer or Employee pending an investigation shall require that any salary provided for that purpose be fully reimbursed if the officer or Employee is convicted of a crime involving an abuse of his or her office or position.

b. Government Code section 53243.1 states that on or after January 1, 2012, any contract executed or renewed between a local agency, such as the City, and an officer or Employee of a local agency, such as Employee that provides funds for the legal criminal defense of an officer or Employee shall require that any funds provided for that purpose be fully reimbursed to the local agency if the officer or Employee is convicted of a crime involving an abuse of his or her office or position.

c. Government Code section 53243.3 states that on or after January 1, 2012, if a local agency, such as the City, provides, in the absence of a contractual obligation, for

any of the payments described in the corresponding article of the Government Code, then the Employee or officer, such as Employee, receiving any payments provided for those purposes shall fully reimburse the local agency that provided those payments in the event that the Employee or officer is convicted of a crime involving the abuse of his or her office or position.

d. Government Code sections 87100 et seq., section 1090 and section 1126, and all other similar statutory and administrative rules, prohibit conflicts of interest. During the term of this Agreement, Applicant shall comply with all those requirements of law, and shall not engage in any business or transaction or maintain a financial interest which conflicts, or reasonably might be expected to conflict, with the proper discharge of Employee's duties under this Agreement.

Applicant represents that he has reviewed, is familiar with, and agrees to comply fully with each of these provisions if any of these provisions are applicable to him, including that Employee agrees that any cash settlement or severance related to a termination that Employee may receive from City shall be fully reimbursed to the local agency if Employee is convicted of a crime involving an abuse of Employee's office or position.

P. **Independent Legal Advice.** City and Applicant represent and warrant to each other that each has received legal advice from independent and separate legal counsel with respect to the legal effect of this Agreement or had the opportunity to do so and City and Applicant further represent and warrant that each has carefully reviewed this entire Agreement and that each term thereof is understood and that the terms of this Agreement are contractual and not a mere recital. This Agreement shall not be construed against the Party or its representatives who drafted it or who drafted any portion thereof.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Parties have executed this Agreement to be effective on the day and year first above written:

Dated: _____ **CITY OF MCFARLAND**

By: _____
Sally Gonzalez
Title: Mayor

Dated: _____ **EMPLOYEE**

By: _____
Charles Baldwin

APPROVED AS TO FORM:

By: _____
Nathan M. Hodges, Esq.
Hodges Law Group
City Attorney

Attachments:

Exhibit A: City of McFarland Position Description – Finance Director

Exhibit B: Agreement of Separation, Severance and General Release

EXHIBIT “A”

EXHIBIT “B”

City of McFarland
FINANCE DIRECTOR

SALARY: DOE

OPENING DATE: 11/22/2021

CLOSING: Continuous

CAREER INFORMATION:

This is a continuous recruitment and may close at anytime without notice, Please ensure all applicable supplemental materials are attached to the application

QUALIFICATIONS:

Minimum Qualifications:

Bachelor's Degree in Accounting, Finance or Business Administration or a closely related field and at least 1 year of broad and extensive experience involving administration and management of government finances and municipal projects and programs, OR any combination of education and/or experience which provides the knowledge, skills and abilities required.

Preferred Qualifications:

Master's degree in accounting, Finance or Business Administration or a closely related field.

3 years of broad and extensive experience involving administration and management of government finances and municipal projects and programs.

Physical Requirements:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. This classification involves work that requires:

- Vision sufficient to read technical, legal, and regulatory documents, periodicals, computer screens, computer print outs, business correspondence, audio visual materials, and other documents encountered in the course of work.
- Hearing sufficient to hear conversational levels in person and over the phone or radio.
- Mobility sufficient to safely work in office settings and similar environments.
- Dexterity sufficient to safely operate office equipment including computers.
- Strength sufficient to lift, carry and move ten (10) lbs.
- Endurance sufficient to sit, walk and stand for extended periods, and maintain efficiency throughout the entire work shift and during extended work hours.

JOB DESCRIPTION:

Under direction of the City Manager, this upper-level position serves as a member of the City's management team and is the Department Head for the Finance Department. This position plans, directs, reviews, and supervises department staff to coordinate their efforts toward achievement of their departmental objectives and the objectives of the City government as a whole. The department activities and operations encompass a wide range of internal and external support services. Persons in this position provide highly responsible and complex administrative support, information and recommendations to the City, City Council, staff, and externally on behalf of the City This position understands public trust and models the highest standards of personal and professional integrity expected of those working in public service.

DUTIES: *Essential functions and duties may be modified at any time at management's discretion. Typical duties may include, but are not limited to the following:*

- Implements goals, objectives, priorities, policies, and procedures of the City of McFarland and the
  Finance Department.
- Represents the City in interactions with the public, elected officials, coworkers, regulatory agencies, investment bankers, financial advisors, and business, professionals on a regular basis.
- Coordinates, supervises, evaluates, and ensures efficiency in the responsibilities, activities, and operations of the Finance Department.
- Supervises and evaluates department personnel, also ensuring that sufficient training and development opportunities are provided.
- Establishes and monitors management and control of the City's financial operating practices.
- Evaluates and implements internal and external audit recommendations and provides feedback to management on results.
- Structures, plans, and coordinates specific financial projects, and conducts, directs and participates in major projects to interpret and recommend financial policy for the City.
- Utilizes financial forecasts and analysis to identify future financial challenges and opportunities and identifies strategies to secure financial sustainability for the City.
- Develops, implements, and administers purchasing policies and procedures for the City, ensuring financial oversight of all City spending and appropriate accounting principles.
- Prepares and/or communicates clear, accurate and comprehensive programs, policies, reports, and recommendations to elected officials, staff, outside agencies and the community.
- Conducts organizational and administrative studies and directs complex forecasting and cost/benefit analysis and recommendations on a wide range of policies, programs, and issues.
- Engages in, performs, and supervises strategic planning to ensure the City's capacity to support organizational stability, community growth, and fiscal responsibility.
- Participates in City management staff meetings and may serve on special committees or direct the conduct of projects having a general City-wide impact.
- Initiates, maintains, and oversees a variety of files, records, and databases (electronic and hard copy) and compiles operational information and data for reports and record keeping.
- Provides filings, justifications and tracking as needed with grant obligations.

- Maintains compliance required by the State of California and the federal government.
- Translates policy statements into working procedures.
- Performs other duties as needed or assigned.

KNOWLEDGE, SKILLS AND ABILITES:

Principles and practices of general municipal administration and organization.

- Professional standards including governmental accounting and financial reporting standards, generally accepted accounting principles, and generally accepted auditing standards, including applicable federal, state, and local laws, ordinances, statutes, rules, regulations, policies, and procedures.
- Municipal finance administration, cost accounting principles and practices, investment fund management, utility accounting, budgeting, and debt management.
- Principles and practices of public human resource administration, including applicable federal, state, and local laws, ordinances, statutes, rules, regulations, policies, and procedures.
- Principles of personnel management, supervision, training, and performance evaluation.
- Modern office procedures, methods and equipment including computers and applicable software applications.

Skills and Ability to:

- Manage, supervise, and direct programs and activities of a multifaceted department.
- Develop and administer departmental goals, objectives, and procedures.
- Analyze and assess programs, policies and operational needs including initiating appropriate adjustments.
- Interpret and apply applicable federal, state, and local policies, laws, and regulations.
- Identify and respond to sensitive and organizational issues, concerns and needs.
- Plan, organize, direct, and coordinate the work of subordinates.
- Delegate authority and responsibility.
- Select, supervise, train, and evaluate staff.
- Analyze problems, identify alternate solutions, project consequences of proposed actions, and implement recommendations in support of goals.
- Prepare and administer large and complex budgets.
- Prepare clear, accurate and concise reports and presentations.
- Effectively communicate whether orally or in writing.
- Develop and maintain a courteous, helpful, and professional image in dealing with public, elected officials, business professionals and coworkers.
- Establish relationships and work cooperatively with City officials, employees, and the general public.
- Plan, manage and direct multiple, diverse projects simultaneously.
- Comprehend, understand, and make use of new or advanced technologies.
- Exercise initiative, apply sound judgment and produce reasonable recommendations.
- Maintain confidentiality when working with sensitive information and issues.
- Demonstrate flexibility in the face of change.

BACKGROUND:(Qualifying only)

The background evaluation will assess overall suitability for the employment the finance Director. Candidates must be found satisfactory in all aspects of the background evaluation.

COMPENSATION & BENEFITS:

The City of McFarland offers an excellent benefit package including:

- Comprehensive City paid medical, dental, and vision benefits for the employee and Dependents.
- Life insurance equal to 1-year base salary with a minimum of $50,000
- Retirement: Deferred Compensation 401(k)-The City of McFarland contributes an additional 10% of an employee's pay each pay period into a 401K plan, at no cost to the employee.
- Supplemental life insurance (Optional)
- Aflac Insurance (Optional)
- Deferred Compensation 457 Plan (Optional)
- Section 125 plan participation
- 12 days' vacation and 12 days sick pay accrued annually.
- 13.5 Days Holiday Pay

APPLICATION:

To apply, please complete an application online at www.mcfarlandcity.org. Resumes will not be accepted in lieu of a City employment application.

EQUAL OPPORTUNITY EMPLOYER:

The City of McFarland is an Equal Opportunity Employer. In accordance with the Americans with Disabilities Act of 1990 (ADA), requests for special accommodations during any stage of the examination process should be made in advance to the Human Resources Department

AGREEMENT OF SEPARATION, SEVERANCE, AND GENERAL RELEASE

1. PARTIES

This Agreement of Separation, Severance, and General Release (hereinafter referred to as the "Agreement") is entered into effective this ___ day of _____, _____ by and between the City of McFarland, a municipal corporation ("'City" herein), and Charles Baldwin ("Employee" herein).

2. RECITALS

2.1 Employee was hired by the City as an at-will Finance Director effective on or about _____, serving at the pleasure of the of the City Manager of the City pursuant to a written Employment Agreement, a copy of which is attached hereto as ("Employment Agreement").

2.2 On or about _____, City provided Employee with a notice of termination of employment. This termination was without cause. The City and Employee desire that Employee separate from employment with the City and enter into this Agreement whereby Employee receives severance compensation in exchange for executing a general release and waiver of any and all claims that Employee may have against the City, including but not limited to, its elected and non-elected officials, Employees, attorneys, and agents. Accordingly, the parties hereto intend by this Agreement to mutually conclude any and all employment relationships between the City and Employee by means of Employee's separation as Finance Director as of the ____ day of _____ 20__. This Agreement sets forth the full and complete terms and conditions concluding Employee's employment relationship with the City and any obligations related thereto, including any provided under the Employment Agreement.

2.3 In accordance with this Agreement and with applicable state and federal laws, Employee acknowledges that Employee has been advised of Employee's post-employment rights, including but not limited to, Employee's rights under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA"), the Employee Retirement Income Security Act of 1974 ("ERISA"), and the Health Insurance Portability and Accountability Act of 1996 (" HIPAA"), and of his rights under the Age Discrimination in Employment Act, and the Older Workers Benefit Protection Act.

3. CONSIDERATION

3.1 Employee shall receive payment to him at the time of his separation all earned salary, accrued fringe benefits as detailed in the Employment Agreement, and/or all other wage compensation/benefits owed to Employee upon separation of employment, as required by state, federal or municipal law or any other Agreement with the City.

3.2 In exchange for the waivers and releases set forth herein, the City shall cause to be paid to Employee an additional compensatory payment as severance pay by means of a lump sum

payment of Fifty-Five Thousand **($ 55,000)**, as set forth in in the form of a check made payable to Employee to be mailed to Employee at Employee's home address via certified mail return receipt requested within thirty (30) business days after the Effective Date (as defined below) of this Agreement. The lump sum payment shall be subject to applicable state and federal withholdings as determined appropriate by the City.

3.3 In exchange for the severance payment provided for herein, Employee, and on behalf of Employee's Spouse, heirs, representatives, successors, and assigns, hereby releases, acquits, and forever discharges the City, and each of its predecessors, successors, assigns, officials, employees, representatives, agents, insurers, attorneys, and all persons and entities acting by, through, under, or in concert with any of them, and such of them (hereinafter referred to as "the City Parties"), from any and all claims, charges, complaints, contracts, understandings, liabilities, obligations, promises, benefits, Agreements, controversies, costs, losses, debts, expenses, damages, actions, causes of action, suits, rights, and demands of any nature whatsoever, known or unknown, suspected or unsuspected, which Employee now has or may acquire in the future, or which Employee ever had, relating to or arising out of any act, omission, occurrence, condition, event, transaction, or thing which was done, omitted to be done, occurred or was in effect at any time from the beginning of time up to and including the effective date of this Agreement (hereinafter referred to collectively as "Claims"), without regard to whether such Claims arise under the federal, state, or local constitutions, statutes, rules or regulations, or the common law. Employee expressly acknowledges that the Claims forever barred by this Agreement specifically include, but are not limited to, claims based upon any alleged breach of the contract or any other Agreement of employment, any demand for wages, overtime or benefits, any claims of violation of the provisions of ERISA, COBRA or HIP AA, any alleged breach of any duty arising out of contract or tort, any alleged wrongful termination in violation of public policy, any alleged breach of any express or implied contract for continued employment, any alleged employment discrimination or unlawful discriminatory act or any claim or cause of action including but not limited · to, any and all claims whether arising under any federal, state or local law prohibiting breach of employment contract, wrongful termination, or employment discrimination based upon age, race, color, sex, religion, handicap or disability, national origin or any other protected category or characteristic, and any and all rights or claims arising under the California Labor Code or Industrial Welfare Commission Wage Orders, the Federal Fair Labor Standards Act, the California Fair Employment and Housing Act, California Government Code§§ 12, 900 et seq., the Americans With Disabilities Act, Title VII of the Civil Rights Act of 1964, the Public Safety Officers Procedural Bill of Right Act, and any other federal, state, or local human rights, civil rights, or employment discrimination or Employee rights statute, rule, or regulation. Nothing herein shall be interpreted as a release or waiver of any workers' compensation claims or in any way prohibit or prevent Employee from participating in any claims or administrative action brought by a state or federal agency. Furthern1ore, nothing herein shall be interpreted as a release or waiver of the City's statutory obligations relative to providing defense and indemnification of public Employees, if any, including but not limited to Government Code Sections 825-825.6 and Sections 995-996.6.

4. SPECIFIC ACKNOWLEDGMENT OF WAIVER OF CLAIMS UNDER ADEA AND OWBPA

The Age Discrimination in Employment Act of 1967 (hereinafter referred to as the "ADEA"") makes it illegal for an employer to discharge any individual or otherwise discriminate with respect to the nature and privileges of an individual's employment on the basis that the individual is age forty (40) or older. The Older Workers Benefit Protection Act (hereinafter referred to as the "OWBPA," 29 U.S.C. § 626, et. seq., Pub L 101-433, 104 Stat. 978 (1990)) further augments the ADEA and prohibits the waiver of any right or claim under the ADEA, **unless the waiver is knowing and voluntary.** By entering into this Agreement, Employee acknowledges that Employee knowingly and voluntarily, for just compensation in addition to anything of value to which Employee was already entitled, waives, and releases any rights he may have under the ADEA and/or OWBPA. Employee further acknowledges that Employee has been advised and understands, pursuant to the provisions of the ADEA and OWBPA, that:

a) This waiver/release is written in a manner understood by Employee;

b) Employee is aware of, and/or has been advised of, Employee's rights under the ADEA and OWBPA, and of the legal significance of Employee's waiver of any possible claims Employee currently may have under the ADEA, OWBPA and/or similar age discrimination laws;

c) Employee is entitled to a reasonable time of at least twenty-one (21) days within which to review and consider this Agreement and the waiver and release of any rights Employee may have under the ADEA, the OWBPA and similar age discrimination laws; but may, in the exercise of Employee's own discretion, sign or reject this Agreement at any time before the expiration of the twenty-one (21) days;

d) The waivers and releases set forth in this Agreement shall not apply to any rights or claims that may arise under the ADEA and/or OWBPA **after** the Effective Date of this Agreement;

e) Employee has been advised by this writing that Employee should consult with an attorney prior to executing this Agreement;

f) Employee has discussed this waiver and release with, and been advised with respect thereto by, Employee's counsel of choice or at least had the opportunity to do so, and Employee represents by signing this Agreement that Employee does not need any additional time within which to review and consider this Agreement;

g) Employee has **seven (7) days following Employee's execution** of this Agreement to revoke the Agreement;

h) Notice of revocation within the seven (7) day revocation period must be provided, in writing, to the City pursuant to Paragraph 8.9 herein, and must state, "I hereby revoke my acceptance of our Agreement of Severance and General Release;" and

i) This Agreement shall not be effective until all parties have signed the Agreement and ten (10) days have passed since Employee's execution of same ("Effective Date").

5. UNKNOWN CLAIMS

In relation to the release provisions of Paragraphs 3, and 4 above, Employee understands that California Civil Code section 1542 reads as follows:

"GENERAL RELEASE--CLAIMS EXTINGUISHED"

"A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR."

Employee hereby waives the protection of California Civil Code section 1542.

6. WAIVER OF ADDITIONAL CLAIMS

Employee hereby waives any provisions of state or federal law that might require a more detailed specification of the claims being released pursuant to the provisions of Paragraphs 3, 4, and 5 above.

7. REPRESENTATIONS AND WARRANTIES

Each of the parties to this Agreement represents and warrants to, and agrees with, each other party as follows:

7.1 Advice of Counsel: The parties hereto have received independent legal advice from their respective attorneys concerning the advisability of entering into and executing this Agreement or have been given the opportunity to obtain such advice. The parties acknowledge that they have been represented by counsel of their own choice in the negotiation of this Agreement, that they have read this Agreement; that they have had this Agreement fully explained to them by such counsel or have had such opportunity to do so and that they are fully aware of the contents of this Agreement and of its legal effect.

7.2 No Fraud in Inducement: No party (nor any officer, agent, employee, representative, or attorney of or for any party) has made any statement or representation or failed to make any statement or representation to any other party regarding any fact relied upon in entering into this Agreement, and neither party relies upon any statement, representation, omission or promise of any other party in executing this Agreement, or in making the settlement provided for herein, except as expressly stated in this Agreement.

7.3 Independent Investigation: Each party to this Agreement has made such investigation of the facts pertaining to this settlement and this Agreement and all the matters pertaining thereto, as it deems necessary.

7.4 Mistake Waived: In entering into this Agreement, each party assumes the risk of any misrepresentation, concealment, or mistake. If any party should subsequently discover that any fact relied upon by it in entering into this Agreement was untrue, or that any fact was concealed from it, or that its understanding of the facts or of the law was incorrect, such party shall not be entitled to any relief in connection therewith, including without limitation on the generality of the foregoing any alleged right or claim to set aside or rescind this Agreement. This Agreement is intended to be, and is, final and binding between the parties, regardless of any claims of misrepresentation, promise made without the intent to perform, concealment of fact, mistake of fact or law, or any other circumstance whatsoever.

7.5 Later Discovery: The parties are aware that they may hereafter discover claims or facts in addition to or different from those they now know or believe to be true with respect to the matters related herein. Nevertheless, it is the intention of the parties that Employee fully, finally, and forever settle and release all such matters, and all claims relative thereto, which do now exist, may exist or have previously existed against the City or the City Parties. In furtherance of such intention, the releases given here shall be, and remain, in effect as full and complete releases of all such matters, notwithstanding the discovery or existence of any additional or different claims or facts relative thereto.

7.6 Indemnification: Employee agrees to indemnify and hold harmless the City or the City Parties from, and against, any and all claims, damages, or liabilities sustained by them as a direct result of the violation or breach of the covenants, warranties, and representations undertaken pursuant to the provisions of this Agreement. Employee understands and agrees that Employee shall be exclusively liable for the payment of all taxes for which Employee is responsible, if any, as a result of Employee's receipt of the consideration referred to in Paragraph 3 of this Agreement. In addition, Employee agrees fully to indemnify and hold the City Parties harmless for payment of tax obligations as may be required by any federal, state, or local taxing authority, at any time, as a result of the payment of the consideration set forth in Paragraph 3 of this Agreement.

7.7 Future Cooperation: Employee shall execute all such further and additional documents as shall be reasonable, convenient, necessary, or desirable to carry out the provisions of this Agreement.

7.8 Return of Confidential Information and Property: Prior to the separation all City keys, equipment, passwords, computer identification cards or codes, and other equipment or materials or confidential documents provided to or obtained by Employee during the course of Employee's employment with the City shall be provided by Employee to the Finance Director or designee.

7.9 No Pending Claims and/or Actions: Employee represents that Employee has not filed any complaints or charges against the City or the City Parties with any local, state or federal

agency or court; that Employee will not do so at any time hereafter for any claim arising up to and including the Effective Date of this Agreement; and that if any such agency or court assumes jurisdiction of any such complaint or charge against the City or the City Parties on behalf of Employee, whenever or where ever filed, Employee will request such agency or court to withdraw from the matter forthwith. Nothing herein shall be interpreted as a release or waiver of any workers' compensation claims or in any way prohibit or prevent Employee from participating in any claims or administrative action brought by a state or federal agency.

7.10 Ownership of Claims: Employee represents and warrants as a material term of this Agreement that Employee has not heretofore assigned, transferred, released, or granted, or purported to assign, transfer, release, or grant, any of the Claims disposed of by this Agreement. In executing this Agreement, Employee further warrants and represents that none of the Claims released by Employee thereunder will in the future be assigned, conveyed, or transferred in any fashion to any other person and/or entity.

7.11 Enforcement Fees and Costs: Should any legal action be required to enforce the terms of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and costs in addition to any other relief to which that party may be entitled.

7.12 Authority: Each party represents to the other that it has the right to enter into this Agreement, and that it is not violating the terms or conditions of any other Agreement to which they are a party or by which they are bound by entering into this Agreement. The parties represent that they will obtain all necessary approvals to execute this Agreement. It is further represented and agreed that the individuals signing this Agreement on behalf of the respective parties have actual authority to execute this Agreement and, by doing so, bind the party on whose behalf this Agreement has been signed.

7.13 Unemployment: Nothing in this Agreement shall limit Employee's ability to apply for unemployment benefits.

8. MISCELLANEOUS

8.1 No Admission: Nothing contained herein shall be construed as an admission by the City of any liability of any kind. The City denies any liability in connection with any claim and intends hereby solely to avoid potential claims and/or litigation and buy its peace.

8.2 Governing Law: This Agreement has been executed and delivered within the State of California, and the rights and obligations of the parties shall be construed and enforced in accordance with, and governed by, the laws of the State of California.

The Parties agree that the exclusive jurisdiction for any legal proceeding arising out of or relating to this Agreement shall be the Kern County Superior Court and all Parties hereby waive any challenge to personal jurisdiction or venue in that court.

8.3 Full Integration: This Agreement is the entire Agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written Agreements and discussions. This Agreement may be amended only by a further Agreement in writing, signed by the parties hereto.

8.4 Continuing Benefit: This Agreement is binding upon and shall inure to the benefit of the parties hereto, their respective agents, spouses, employees, representatives, officials, attorneys, assigns, heirs, and successors in interest.

8.5 Joint Drafting: Each party agrees that it has cooperated in the drafting and preparation of this Agreement. Hence, in any construction to be made of this Agreement, the parties agree that same shall not be construed against any party.

8.6 Severability: In the event that any term, covenant, condition, provision, or Agreement contained in this Agreement is held to be invalid or void by any court of competent jurisdiction, the invalidity of any such term, covenant, condition, provision or Agreement shall in no way affect any other term, covenant, condition, provision or Agreement and the remainder of this Agreement shall still be in full force and effect.

8.7 Titles: The titles included in this Agreement are for reference only and are not part of its terms, nor do they in any way modify the terms of this Agreement.

8.8 Counterparts: This Agreement may be executed in counterparts, and when each party has signed and delivered at least one such counterpart, each counterpart shall be deemed an original, and, when taken together with other signed counterparts, shall constitute one Agreement, which shall be binding upon and effective as to all parties. Delivery of executed originals of this Agreement, as well as any instrument contemplated in connection with this Agreement, may be affected by facsimile and/or electronic transmission, and in such event, copies of executed originals so delivered may be used in place of, and shall have the same force and effect as, the executed originals.

8.9 Notice: Any and all notices given to any party under this Agreement shall be given as provided in this paragraph. All notices given to either party shall be made by certified or registered United States mail, or personal delivery, at the noticing party's discretion, and addressed to the parties as set forth below. Notices shall be deemed, for all purposes, to have been given and/or received on the date of personal service or three (3) consecutive calendar days following deposit of the same in the United States mail.

City: City Manager,City of McFarland 401 West Kern Avenue McFarland, CA 93250	**Employee:** Charles Baldwin 33609 Globe Drive Springville, Ca 93265 Chuck_baldwin@mac.com

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed, the day and year first-above written.

Dated: _____ "Employee"

By:_____
CHARLES BALDWIN

Dated: _____ City of McFarland

By:_____

Name: _____

Title: Mayor

APPROVED AS TO FORM:

For City:

By: _____

Name: _____

Title: City Attorney

For Employee (if represented):

By: _____

Name: _____

Title: _____

CITY OF MCFARLAND

MEMORANDUM

TO: HONORABLE MAYOR AND COUNCIL MEMBERS

FROM: Marilyn Garza, Human Resources Director

DATE: **April 14, 2022**

SUBJECT: Finance Department Staffing

Discussion:

Through fiscal budget analysis and job classifications review, staff concluded that a Payroll Clerk position is necessary.

Staff has created proposed job description and duty that will be assigned to the position. Staff will pursue filling these positions within this year's fiscal budget.

Staff recommends the Council approve the job descriptions and direct Staff to fill the position promptly.

Fiscal Impact:

The hourly rate for the accounts receivable and payable position is $17.21-$22.03 (15 Step A-F) Annual Wage $35,796.80-$45,822.40. The total annual cost of a permanent full-time Payroll Clerk totals a combined $71,432.29 - $83,237.44 (Salary and Fringe Benefits).

Recommendation:

It is recommended that the City Council approve the job descriptions for Payroll Clerk attached to Resolution No 2022-0025.

Attachments:

Payroll Clerk Job Description
Resolution No. 2022-0025

401 W. Kern Avenue
McFarland, CA 93250
661-792-3091 Office
661-792-3093 Fax

CITY OF MCFARLAND FINANCE

DEPARTMENT

PAYROLL CLERK

Hourly: $17.21-$22.03 Bi-weekly

SALARY: $1,376.80-$1,762.40 Bi-weekly

OPENING DATE: 04/15/2022
CLOSING: until filled

POSITION SUMMARY:
The fundamental reason this classification exists is to plan, coordinate, and schedule the work of the City's payroll. The Payroll performs complex paraprofessional accounting work in the implementation of a centralized payroll processing system; performs related bookkeeping and accounting duties. Under general supervision, participates in recordkeeping activities relating to payroll.

CLASS CHARACTERISTICS:
This is a journey-level classification for clerical accounting employees who are required to have financial recordkeeping skills. Employees in this class normally perform a group of related duties according to established procedures. While a variety of tasks may be assigned, each step usually follows a pattern which has been established and explained before work is started. The Payroll is required to exercise independent judgment and initiative in completing complex and sensitive accounting work for the City's centralized payroll function. Exercise discretion and tact in processing documents and handling confidential and/or sensitive information.

ESSENTIAL RESPONSIBILITIES:
Prepares and submits accounting information for data processing; reconciles any differences between accounting records and data processing reports; requests reports and end-of-year printouts from data processing; provides data on monies due, collected, and delinquent for accounting information and annual auditors' reports; answers questions and advises on procedures in preparing accounting transactions.

Participates in the preparation and auditing of payroll materials requiring analysis of supporting documents; ensures that all entries and adjustments are entered properly into the City's computerized system.

Receives and processes payments and verifies accuracy of bills and payments, including researching minor discrepancies. Matches invoices, receiving reports and other requests for payment with purchase order or contract documents; ensures proper authorization and compliance with City policies and procedures.

Prepares bills for check writing and input to data processing. Provides information to vendors regarding invoices and purchase orders.

Reviews employee time reports for accuracy and compliance with policies and procedures; completes forms to authorize payroll or personnel status changes. Correlates City payroll runs with time records and explains payroll deductions and related payroll transactions to City employees.

Calculates base pay, overtime, gross pay, deductions, reportable earnings, taxable earnings, and accrued leave time, in accordance with City procedures. Calculates various withholdings from wages.

Runs payroll checks and prepares for distribution.

Maintains and updates master payroll records; prepares and reconciles tax reports; reconciles and computes payments due for various benefit program providers.

Inputs and reviews statistical reports; works with various reports, registers, and journals.

Exercise discretion and tact in processing documents and information of a confidential or sensitive nature in a variety of program areas, including benefits, payroll administration, compensation, personal data, employee leave, vendor information; other employee/employer data.

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Knowledge of – Principles and practices of financial record keeping and accounting; basic principles of payroll; computers and computer software including spreadsheets, databases, and word processing; modern office procedures and equipment; effective customer service; applicable laws and regulations including wage and hour; clerical accounting methods, forms, and techniques. Processing of invoices and purchase orders and ability to understand, interpret and apply purchasing policies and procedures.

Skilled in – Financial recordkeeping practices and techniques; statistical report preparation; research methods; customer account reconciliation.

Ability to - Understand and interpret the principles, laws, and procedures involved in financial record keeping and accounting functions; prepare financial reports and maintain on-line ledgers and journals; analyze data and draw logical conclusions; understand, interpret, multi-task, problem solve, and prioritize work; key data into spreadsheets, databases, on-line ledgers an journals quickly and accurately; communicate effectively, both verbally and in writing; establish and maintain effective working relationships with others; communicate effectively in written and oral form; follow oral and written directions; develop and maintain effective working relationships; operate regular office equipment, including calculator and minicomputer.

Licenses and Certificates – A valid California Driver's License and a driving record acceptable to the City's insurance company.

Physical Abilities and Work Environment – Subject to standing, walking, sitting, bending, reaching, kneeling, pushing, and pulling. Occasional lifting of objects up to 25 pounds. Must be able to perform repetitive motion and fine manipulation tasks for long intervals of time. Must be able to sit or stand for long periods of time. This job operates in a professional office environment. This role routinely uses standard office equipment such as computers, phones, photocopiers, filing cabinets and fax machines.

Other – Bilingual fluency in English and Spanish is preferred.

EDUCATION AND EXPERIENCE:

Any combination of experience and education that would be likely to provide the required knowledge, skills, and abilities could be qualifying, as determined by the City. A typical way to obtain the knowledge, skills, and abilities is:

Experience – Three (3) – Five (5) years of experience performing financial and statistical record keeping including one year at the paraprofessional level maintaining accounts payable, purchasing, payroll system or processing records.

Education - Graduation from an accredited high school or an equivalent certificate or diploma recognized by the State of California and an Associate Degree (AA) in accounting or business.

APPLICATION:
To apply, please complete an application online at www.mcfarlandcity.org. **Resumes will not be accepted in lieu of a City employment application.** To be considered for this position, please submit completed employment application and resume.

Candidates with the most relevant qualifications will be invited to participate in the interview and testing processes. Reference checks, Live SCAN, background investigations, and pre-employment physicals including drug testing are part of the employment process and background standards.

EQUAL OPPORTUNITY EMPLOYER:
The City of McFarland is an Equal Opportunity Employer. In accordance with the Americans with Disabilities Act of 1990 (ADA), requests for special accommodations during any stage of the examination process should be made in advance to the Human Resources Department.

RESOLUTION NO. 2022-0025

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MCFARLAND APPROVING JOB DESCRIPTIONS FOR PAYROLL CLERK IN THE FINANCE DEPARTMENT

WHEREAS, the City Council of the City of McFarland has approved a fiscal year budget for 2021/2022; and

WHEREAS, the City Council believes it is necessary to increase the staffing in the finance department with the addition of a fulltime permanent Payroll Clerk position for the proper functioning of our financial accounting systems; and

WHEREAS, the City Council appropriated funds to the finance department's budget for this fiscal year.

WHEREAS, human resource director has created job descriptions for the Payroll Clerk; and

WHEREAS, the job descriptions are attached hereto as Exhibit "A."

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of McFarland that it hereby finds and determines as follows:

1) The foregoing recitals are true and correct and incorporated herein as if set forth in full.

2) The City Manager is hereby authorized and directed to utilize the job descriptions attached hereto as Exhibit "A" for Payroll Clerk within the Finance Department.

3) The City Manager is hereby directed to fill the positions of Payroll Clerk within the Finance Department.

4) The City Clerk shall certify to the passage and adoption of this Resolution.

5) This Resolution is effective immediately.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of McFarland on the APRIL 14TH, 2022 by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

ATTEST:

_____
Francisca Alvarado, City Clerk

CITY OF MCFARLAND:

_____
Sally Tafoya, Mayor

I, _____, City Clerk of the City of McFarland, California, DO HEREBY CERTIFY that the foregoing resolution is a true and accurate copy of the Resolution passed and adopted by the City Council of the City of McFarland on the date and by the vote indicated herein.

_____
Francisca Alvarado, City Clerk

401 W. Kern Avenue

McFarland, CA 93250

661-792-3091 Office

661-792-3093 Fax

CITY OF MCFARLAND FINANCE

DEPARTMENT

PAYROLL CLERK

Hourly: $17.21-$22.03 Bi-weekly

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CLASS CHARACTERISTICS:
This is a journey-level classification for clerical accounting employees who are required to have financial recordkeeping skills. Employees in this class normally perform a group of related duties according to established procedures. While a variety of tasks may be assigned, each step usually follows a pattern which has been established and explained before work is started. The Payroll is required to exercise independent judgment and initiative in completing complex and sensitive accounting work for the City's centralized payroll function. Exercise discretion and tact in processing documents and handling confidential and/or sensitive information.

ESSENTIAL RESPONSIBILITIES:
Prepares and submits accounting information for data processing; reconciles any differences between accounting records and data processing reports; requests reports and end-of-year printouts from data processing; provides data on monies due, collected, and delinquent for

accounting information and annual auditors' reports; answers questions and advises on procedures in preparing accounting transactions.

Participates in the preparation and auditing of payroll materials requiring analysis of supporting documents; ensures that all entries and adjustments are entered properly into the City's computerized system.

Receives and processes payments and verifies accuracy of bills and payments, including researching minor discrepancies. Matches invoices, receiving reports and other requests for payment with purchase order or contract documents; ensures proper authorization and compliance with City policies and procedures.

Prepares bills for check writing and input to data processing. Provides information to vendors regarding invoices and purchase orders.

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Inputs and reviews statistical reports; works with various reports, registers, and journals.

Exercise discretion and tact in processing documents and information of a confidential or sensitive nature in a variety of program areas, including benefits, payroll administration, compensation, personal data, employee leave, vendor information; other employee/employer data.

Performs related duties as required.

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Skilled in – Financial recordkeeping practices and techniques; statistical report preparation; research methods; customer account reconciliation.

Ability to - Understand and interpret the principles, laws, and procedures involved in financial record keeping and accounting functions; prepare financial reports and maintain on-line ledgers and journals; analyze data and draw logical conclusions; understand, interpret, multi-task, problem solve, and prioritize work; key data into spreadsheets, databases, on-line ledgers an journals quickly and accurately; communicate effectively, both verbally and in writing; establish and maintain effective working relationships with others; communicate effectively in written and oral form; follow oral and written directions; develop and maintain effective working relationships; operate regular office equipment, including calculator and minicomputer.

Licenses and Certificates – A valid California Driver's License and a driving record acceptable to the City's insurance company.

Physical Abilities and Work Environment – Subject to standing, walking, sitting, bending, reaching, kneeling, pushing, and pulling. Occasional lifting of objects up to 25 pounds. Must be able to perform repetitive motion and fine manipulation tasks for long intervals of time. Must be able to sit or stand for long periods of time. This job operates in a professional office environment. This role routinely uses standard office equipment such as computers, phones, photocopiers, filing cabinets and fax machines.

Other – Bilingual fluency in English and Spanish is preferred.

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Any combination of experience and education that would be likely to provide the required knowledge, skills, and abilities could be qualifying, as determined by the City. A typical way to obtain the knowledge, skills, and abilities is:

Experience – Three (3) – Five (5) years of experience performing financial and statistical record keeping including one year at the paraprofessional level maintaining accounts payable, purchasing, payroll system or processing records.

Education - Graduation from an accredited high school or an equivalent certificate or diploma recognized by the State of California and an Associate Degree (AA) in accounting or business.

APPLICATION:

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Candidates with the most relevant qualifications will be invited to participate in the interview and testing processes. Reference checks, Live SCAN, background investigations, and pre-employment physicals including drug testing are part of the employment process and background standards.

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