

Public Draft

Initial Study & Proposed Negative Declaration CEQA Report

Cawelo Water District

Landowner Groundwater Recharge and Banking Project

Prepared for:

Cawelo Water District



October 2020

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Prepared for:

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Project No. 202925

Table of Contents

1.0	Introduction	1-1
1.1	Purpose of the Initial Study.....	1-1
1.2	Summary of Findings.....	1-2
1.3	Document Organization.....	1-2
2.0	Project Description	2-1
2.1	Project Background.....	2-1
2.2	Project Overview and Objectives.....	2-1
2.3	Project Components.....	2-4
2.4	Project Requirements and Constraints.....	2-4
2.4.1	Water Source and Quality.....	2-4
2.4.2	Use of Banked Water.....	2-4
2.4.3	Banked Water Credits.....	2-5
2.5	Construction.....	2-5
2.6	Implementation Schedule.....	2-5
3.0	Environmental Checklist	3-1
3.1	Aesthetics.....	3-5
3.1.1	Environmental Setting.....	3-5
3.1.2	Discussion.....	3-5
3.2	Agriculture and Forestry Resources.....	3-7
3.2.1	Environmental Setting.....	3-7
3.2.2	Discussion.....	3-8
3.3	Air Quality.....	3-9
3.3.1	Environmental Setting.....	3-9
3.3.2	Discussion.....	3-9
3.4	Biological Resources.....	3-11
3.4.1	Discussion.....	3-12
3.5	Cultural Resources.....	3-15
3.5.1	Environmental Setting.....	3-15
3.5.2	Methods.....	3-18
3.5.3	Findings.....	3-18
3.5.4	Discussion.....	3-18
3.6	Energy.....	3-21
3.6.1	Discussion.....	3-21
3.7	Geology and Soils.....	3-23
3.7.1	Discussion.....	3-24
3.8	Greenhouse Gas Emissions.....	3-27
3.8.1	Discussion.....	3-27
3.9	Hazards and Hazardous Materials.....	3-29
3.9.1	Discussion.....	3-30
3.10	Hydrology and Water Quality.....	3-33
3.10.1	Environmental Setting.....	3-34
3.10.2	Discussion.....	3-34
3.11	Land Use and Planning.....	3-43

3.11.1 Discussion	3-43
3.12 Mineral Resources	3-44
3.12.1 Discussion	3-44
3.13 Noise	3-45
3.13.1 Discussion	3-45
3.14 Population and Housing	3-47
3.14.1 Discussion	3-47
3.15 Public Services	3-49
3.15.1 Discussion	3-49
3.16 Recreation	3-51
3.16.1 Discussion	3-51
3.17 Transportation	3-53
3.17.1 Discussion	3-53
3.18 Tribal Cultural Resources	3-55
3.18.1 Environmental Setting	3-55
3.18.2 Methods and Findings	3-55
3.18.3 Discussion	3-55
3.19 Utilities and Service Systems	3-57
3.19.1 Discussion	3-57
3.20 Wildfire	3-59
3.20.1 Discussion	3-59
3.21 Mandatory Findings of Significance	3-61
3.21.1 Discussion	3-61

4.0 References 4-1

5.0 Report Preparers..... 5-1

List of Tables

Table 3-1. Project Information.....	3-1
Table 3-2. Environmental Factors Potentially Affected.....	3-3
Table 3-3. Evaluation of Surface Water Sources.....	3-37
Table 3-4. Monitoring Well Network in the Cawelo GSA	3-42

List of Figures

Figure 2-1. Regional Location Map	2-2
Figure 2-2. Project Location	2-3

List of Appendices

- Appendix A – Groundwater Tech Memo
- Appendix B – Tribal Consultation

Abbreviations and Acronyms

AWMP	Agricultural Water Management Plan
Basin Plan	Tulare Lake Basin
Calfire	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
C.A.S.G.E.M.	California Statewide Groundwater Elevation Monitoring
CVRWQCB	Central Valley Regional Water Quality Control Board
County	Kern County
CCR	California Code of Regulation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CRHR	California Register of Historic Resources
CVP	Central Valley Project
C.O.2.	carbon dioxide
District	Cawelo Water District
DOC	Department of Conservation
DTSC	Department of Toxic Substance Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FKC	Friant-Kern Canal
G.A.R.	Groundwater Quality Assessment Report
GEI	GEI Consultants
GHG	Greenhouse gases
G.I.C.I.M.A.	Groundwater Information Center Interactive Map
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HCP	Habitat Conservation Plan
IS/ND	Initial Study/Negative Declaration
JRP	JRP Historical Consulting Services
MRZ	Mineral Resource Zone
NRCS	Natural Resource Conservation Service
OHP	Office of Historic Preservation
PM	Particulate Matter
PRC	Public Resources Code
Proposed Project	Landowner Groundwater Recharge and Banking Project
Reclamation	United States Bureau of Reclamation
SGMA	Sustainable Groundwater Management Act
S.J.V.A.P.C.D.	San Joaquin Valley Air Pollution Control District
SWP	State Water Project
SWRCB	State Water Resource Control Board
U.S.F.W.S.	United States Fish and Wildlife Service
USGS	United States Geologic Survey
WDR	waste discharge requirements

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1.0 Introduction

The Cawelo Water District (District) has prepared this Initial Study/Negative Declaration (IS/ND) in compliance with the California Environmental Quality Act (CEQA) to address the potentially significant environmental impacts of the proposed Landowner Groundwater Recharge and Banking Project (proposed project) located in the District. The District is the lead agency under CEQA.

This document includes:

- an IS to satisfy CEQA requirements
- a proposed ND to satisfy CEQA requirements

After the required public review of this document is complete, the District will consider adopting the proposed ND and will decide whether to proceed with the proposed project.

1.1 Purpose of the Initial Study

This document is an IS/ND prepared in accordance with CEQA (California Public Resources Code, Section 21000 et seq.) and the state CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations [CCR]). The purpose of this IS is to determine whether proposed project implementation would result in potentially significant or significant impacts on the physical environment.

An IS presents environmental analysis and substantial evidence in support of its conclusions regarding the significance of environmental impacts. Substantial evidence may include expert opinion based on facts, technical studies, or reasonable assumptions based on facts. An IS is neither intended nor required to include the level of detail provided in an Environmental Impact Report (EIR).

CEQA requires that all state and local government agencies consider the potentially significant and significant environmental impacts of projects they propose to carry out or over which they have discretionary authority, before implementing or approving those projects. The public agency that has the principal responsibility for carrying out or approving a proposed project is the lead agency for CEQA compliance (CEQA Guidelines, CCR Section 15367). The District has principal responsibility for carrying out the proposed project and is therefore the CEQA lead agency for this IS/ND.

If there is substantial evidence (such as the findings of an IS) that a project, either individually or cumulatively, may have a significant or potentially significant impact on the physical environment, the lead agency must prepare an EIR (CEQA Guidelines, CCR Section 15064[a]). If the IS concludes that impacts would be less than significant, or that mitigation measures committed to by the applicant would clearly reduce impacts to a less-than-significant level, a ND or MND can be prepared.

The District has prepared this IS to evaluate the potential environmental impacts of the proposed project. The proposed project would not result in any significant project-related impacts. Therefore, an ND has been prepared for this project.

1.2 Summary of Findings

Chapter 3 of this document contains analysis and discussion of potential environmental impacts of the proposed project. Based on this evaluation, it was determined:

The proposed project would result in no impacts on the following issue areas: aesthetics, agricultural and forestry resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, and hydrology and water quality.

The proposed project would result in less-than-significant impacts on the following issue areas: energy, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, Tribal cultural resources, utilities and service systems, and wildfire.

1.3 Document Organization

This document is divided into five key sections:

Chapter 1, “Introduction,” describes the purpose of the IS/ND, summarizes findings, and describes the organization of this IS.

Chapter 2, “Project Description,” describes the project location and background, project need and objectives, project characteristics, construction activities, project operations, and discretionary actions and approvals that may be required.

Chapter 3, “Environmental Checklist,” presents an analysis of environmental issues identified in the CEQA Environmental Checklist and determines whether project implementation would result in no impact, less-than-significant impact, less-than-significant impact with mitigation incorporated, potentially significant impact, or significant impact, on the physical environment in each issue area. Should any impacts be determined to be potentially significant or significant with mitigation incorporated, an EIR would be required. For the proposed project, however, mitigation measures have not been incorporated because there are no impacts beyond a less-than-significant level.

Chapter 4, “References,” lists the references used to prepare this IS.

Chapter 5, “Report Preparers,” identifies individuals who helped prepare or review this document.

2.0 Project Description

2.1 Project Background

The District is located in the southern San Joaquin Valley, in Kern County (County), approximately 20 miles northwest of Bakersfield (**Figure 1**). The District's service area includes approximately 45,000 acres and the District provides irrigation water (via surface water and groundwater deliveries) to approximately 34,000 acres of orchards, vineyards, and other crops (**Figure 2**).

Groundwater levels in the District fluctuate seasonally with local recharge and in response to climatic variations of droughts and wet conditions. Water levels have been measured in the area since the 1930s; however, the availability of increased water level data since the 1970s provides a more complete record of water level trends and fluctuations. In general, groundwater levels decline during periods of drought when recharge is reduced and groundwater pumping increases in response to declines in imported water. During the intervening wet periods, groundwater level trends have generally recovered to near pre-drought conditions. The development of managed aquifer recharge operations in the 1980s also helped groundwater level recovery. The recent statewide drought of 2012 to 2016 led to historic low groundwater levels in many parts of the District. With the passage of the Sustainable Groundwater Management Act (SGMA) in 2014, local agencies have increasingly focused on projects and programs that can improve groundwater sustainability while supporting continued agricultural production in the Districts.

2.2 Project Overview and Objectives

The District currently owns and operates in-District groundwater recharge facilities and participates in existing groundwater banking programs, in cooperation with local and other water districts. However, in anticipation of potential future groundwater pumping restrictions under SGMA, the District is considering development of a local Landowner recharge and banking project to provide Landowners within the District with a direct groundwater banking opportunity. Additionally, the District may also bank District water in Landowner recharge facilities, where appropriate, within the project. The following objectives were developed for the proposed project:

- Support increased flexibility in meeting water demands.
- Protect groundwater levels and quality within the District.

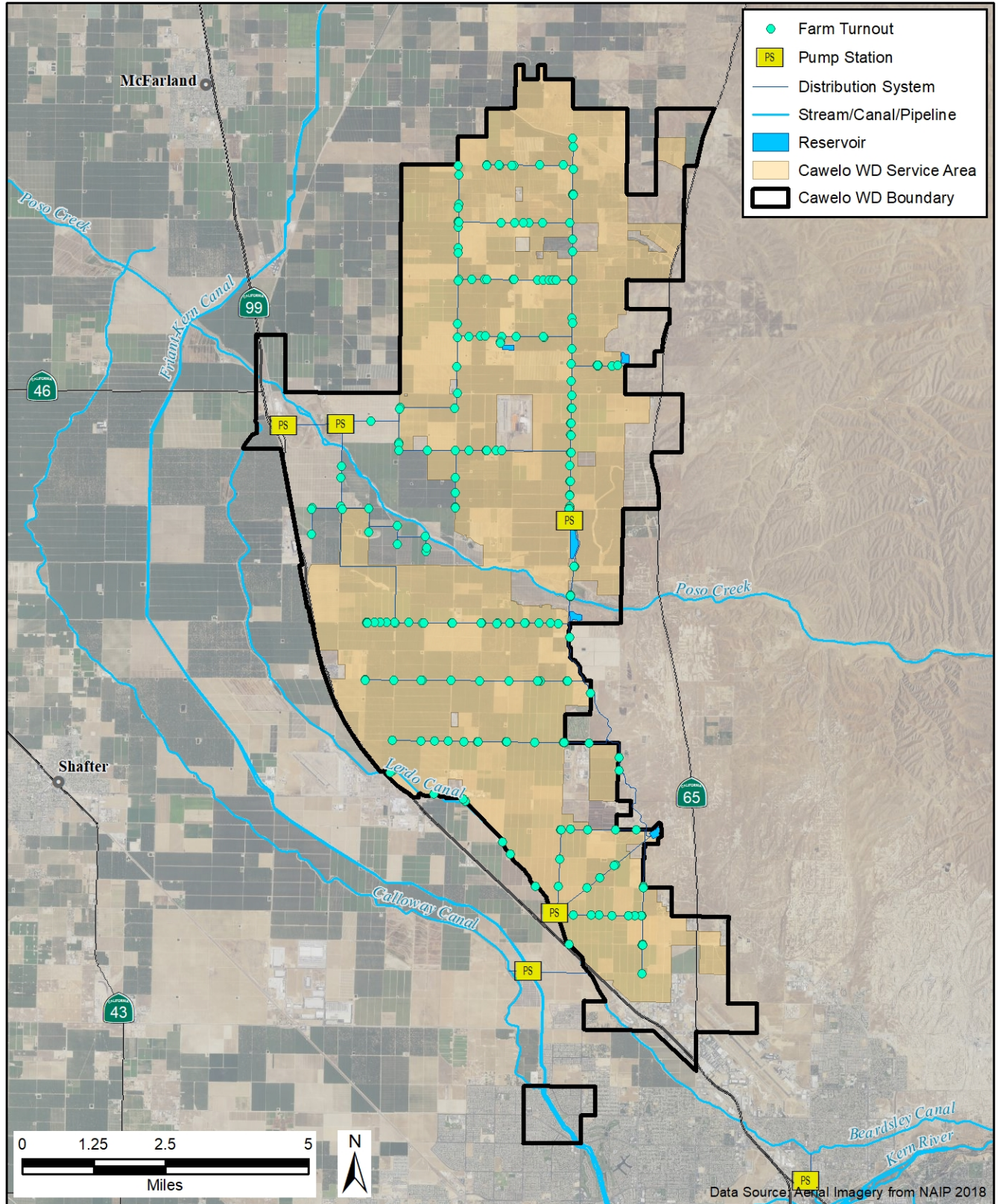
The specific terms of the proposed project may change over the duration of the project, at the discretion of the District and enrolled Landowners.

Figure 2-1. Regional Location Map



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Figure 2-2. Project Location



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2.3 Project Components

Under the proposed project and within its parameters, Landowners would be allowed to convey Landowner owned surface water, acquired outside of the District, through existing District conveyance facilities, for groundwater recharge and later use. Recharge and banking of the Landowner water would be conducted by two methods:

- 1) Recharge, banking and later use of Landowner water at Landowner-constructed and owned recharge facilities. Landowners would have priority for the use of their recharge basins to bank Landowner (non-District) surface water. The District would have a limited second priority to use Landowner-owned recharge facilities to bank District water, with the Landowner's approval.
- 2) Recharge, banking and later use of Landowner water at existing District-owned recharge facilities, where unused recharge capacity was made available to Landowners. The District would maintain priority use of its facilities and Landowners would have a limited second priority to use District-owned recharge facilities to bank Landowner water, with District approval.

As mentioned previously, where banking capacity is available, the District may also convey District surface water through the existing District conveyance system, for recharge in Landowner-owned recharge facilities.

2.4 Project Requirements and Constraints

To protect groundwater water quality, groundwater levels, and support future sustainability, the proposed project would operate under several constraints, as described below.

2.4.1 *Water Source and Quality*

Under the proposed project, only surface water would be conveyed through District facilities and used for recharge and banking purposes; this may include but is not limited to, water obtained from the Kern River, Poso Creek, State Water Project (SWP) Article 21, and Friant 215 supplies. Surface water allocated to Landowners by the District as part of its normal ongoing operations, and water provided under the District's Winter Supplemental Water Project would not be used by the Landowners for recharge and banking. Additionally, water conveyed through District facilities would be of sufficient quality to meet existing standards for agricultural water use.

2.4.2 *Use of Banked Water*

Under the proposed project, water delivered to a recharge facility through the District's distribution system would only be used for groundwater recharge and banking for later beneficial use. The water would not be used to simultaneously irrigate crops or pre-irrigate crops. The water would not be delivered for any other purpose than groundwater recharge, banking and later use.

Banked water extracted under the proposed project would only be used or transferred within District boundaries. Exportation of actual water is prohibited. However, a percentage (currently set at 25%) of the Landowner's stored water account "credit" can be transferred outside of Cawelo boundaries to an adjacent District or to lands adjacent to Cawelo, but only if the transfer amount is in excess of the Landowner's crop water requirements within Cawelo. Account transferability

may ultimately be subject to SGMA Groundwater Sustainability Plans (GSPs) and any credit transfers would be scheduled with Cawelo for accounting purposes only.

Landowners would be required to coordinate with the District to schedule water deliveries through the District distribution system. Similarly, the District would coordinate with Landowners regarding delivery of District water banked within Landowner-owned recharge facilities. Landowners would be responsible for managing water deliveries to the District boundary and for water transportation costs and losses associated with conveying Landowner surface water once it enters the District's distribution system.

2.4.3 Banked Water Credits

Under the proposed project, for Landowner water delivered into a Landowner banking facility, the Landowner would be credited with a percentage (currently set at 90%) of the volume of percolated water. The remaining percentage of percolated water would be credited to the District. For Landowner water delivered into a District banking facility, the Landowner would be credited with a percentage (currently set at 75%) of the volume of percolated water. The remaining percentage of percolated water would be credited to the District.

For District water delivered into a Landowner banking facility, the District would be credited with a percentage (currently set at 75%) of the volume of percolated water. The remaining percentage of percolated water would be credited to the Landowner. Percolation volumes would be based on meter volumes measured at the Point of Delivery less evaporation losses per the District's provided evaporation table.

2.5 Construction

Landowners would be responsible for construction, operation, maintenance, and repair of their recharge facilities. Therefore, there would be no construction activities, equipment use, construction worker or maintenance worker truck trips associated with District's staff or contractors, under the proposed project.

2.6 Implementation Schedule

Recharge and banking operations under the proposed project would begin no earlier than November 2020.

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3.0 Environmental Checklist

Project Information

Table 3-1. Project Information

#1. Project title:	Landowner Groundwater Recharge and Banking Project
#2. Lead agency name and address:	Cawelo Water District 17207 Industrial Farm Road Bakersfield, CA 93308
#3. Contact person and phone number:	David Ansolabehere, General Manager 661-393-6072
#4. Project location:	The proposed project is located within the District, approximately 12 miles north of Bakersfield, Kern County, California (Figure 1).
#5. Project sponsor's name and address:	See # 2, above.
#6. General plan designation:	Agriculture
#7. Zoning:	A (Exclusive Agriculture)
#8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)	Proposed development of a local Landowner recharge and banking project to provide Landowners within the District with a direct groundwater banking opportunity. The District may also bank District water in Landowner recharge facilities, where appropriate, within the project.
#9. Surrounding land uses and setting: Briefly describe the project's surroundings:	The surrounding land use is almost exclusively active agricultural land with scattered industrial uses. The community of Cawelo is located in the middle of the District service area.
#10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)	N/A
#11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.? Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and	Yes. Consultation is described in more detail in Sections 3.5, "Cultural Resources," and 3.17, "Tribal Cultural Resources."

conflict in the environmental review process. (See PRC Section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. **Please also note** that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Environmental Factors Potentially Affected

The environmental factors listed as “Yes” in the table below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

Table 3-2. Environmental Factors Potentially Affected

Environmental Factors	Yes or No?
Aesthetics	No
Agriculture and Forestry Resources	No
Air Quality	No
Biological Resources	No
Cultural Resources	No
Energy	No
Geology/Soils	No
Greenhouse Gas Emissions	No
Hazards and Hazardous Materials	No
Hydrology/Water Quality	No
Land Use/Planning	No
Mineral Resources	No
Noise	No
Population/Housing	No
Public Services	No
Recreation	No
Transportation	No
Tribal Cultural Resources	No
Utilities/Service Systems	No
Wildfire	No
Mandatory Findings of Significance	No

Determination (to be completed and signed by the Lead Agency)

On the basis of this initial evaluation:

Yes or No?

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, No and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or No "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

8 OCTOBER 2020

Date

David Ansolabehere

Print Name

General Manager

Title

Cawelo Water District

Agency

Evaluation of Environmental Impacts

3.1 Aesthetics

#1. **AESTHETICS.** Except as provided in PRC Section 21099, **would the project:**

#1 -a. Have a substantial adverse effect on a scenic vista?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#1 -b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#1 -c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#1 -d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.1.1 *Environmental Setting*

The surrounding land use is almost exclusively active agricultural land with scattered industrial uses.

3.1.2 *Discussion*

a, b, c, d) Have a substantial adverse effect on a scenic vista? Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project does not include any new developments which could have the potential to substantially adversely impact scenic vistas, damage scenic resources, degrade existing visual character or create a new source of light or glare. The project would use existing District-owned conveyance system and potentially District recharge facilities. No new construction is proposed under the proposed project. Therefore, the project would have **no impact** on visual resources.

3.2 Agriculture and Forestry Resources

#2. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**

#2 -a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#2 -b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#2 -c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#2 -d. Result in the loss of forest land or conversion of forest land to non-forest use?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#2 -e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.2.1 Environmental Setting

The District service area is located in Kern County, and supplies water for agricultural uses. The District provides irrigation water for approximately 75 percent of its total service acreage. Agricultural production within the District service area includes orchard, vineyards, and other crops. There are no lands designated as forest or timberlands within the District.

3.2.2 Discussion

a, b) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? Conflict with existing zoning for agricultural use, or a Williamson Act contract? Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? Result in the loss of forest land or conversion of forest land to non-forest use? Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The project would not include any new developments or construction and the existing District-owned conveyance system would be used to implement the project. The project would have **no impact** on continued agriculture production in the District because it would not remove any lands from production. The proposed project would benefit agricultural resources by facilitating flexibility for groundwater recharge and banking by agricultural landowners, in anticipation of future agricultural water demands, and likely future groundwater pumping restrictions under SGMA. Since existing infrastructure would be utilized under the proposed project and no new development would be required, the proposed project would not affect continued agricultural production, Williamson Act contract lands, important farmland and there would be **no impact** to agriculture. Additionally, there are no forest lands or timberlands within the District service area. The project would have **no impact** forestry.

3.3 Air Quality

#3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations. **Would the project:**

#3 -a. Conflict with or obstruct implementation of the applicable air quality plan?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#3 -b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#3 -c. Expose sensitive receptors to substantial pollutant concentrations?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#3 -d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.3.1 Environmental Setting

The District is located within the San Joaquin Valley Air Pollution Control District (S.J.V.A.P.C.D.) and is comprised mostly of agricultural fields and paved and unpaved roads. The S.J.V.A.P.C.D. is in nonattainment for state air quality standards limiting ozone, Particulate Matter (PM) 10 microns or less and PM 2.5 microns or less (S.J.V.A.P.C.D. 2019).

3.3.2 Discussion

a, b, c, d) Conflict with or obstruct implementation of the applicable air quality plan? Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard? Expose sensitive receptors to substantial pollutant concentrations? Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The project would not include any new construction that could conflict with the implementation of an applicable air quality plan, result in cumulatively considerable net increase of any criteria air

pollutants for which S.J.V.A.P.C.D. is non-attainment, expose sensitive receptors to substantial pollutant concentrations, or result in other emissions. The existing District-owned conveyance and would be used to meet project objectives. Therefore, the project would have **no impact**.

3.4 Biological Resources

#4. BIOLOGICAL RESOURCES. Would the project:

#4 -a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#4 -b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#4 -c. Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#4 -d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#4 -e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#4 -f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.4.1 Discussion

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

The project would not have substantial adverse effects on any species listed as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Fish and Wildlife Department (CDFW) or United States Fish and Wildlife Services (U.S.F.W.S.). The project consists of using existing District-owned water conveyance infrastructure to allow for Landowners to bank privately purchased surface water within the District recharge facilities. Additionally, Landowners could allow the District to bank additional surface water in their privately owned and operated recharge facilities, when additional space is available. The project does not include construction of new infrastructure or buildings of any kind and makes use of existing District facilities. Therefore, the project would have **no impact** on any special status species or their habitat.

- b, c) **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? Have a substantial adverse effect on state- or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

The project would not impact any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations. The project also would not impact any state- or federally protected wetlands. See Question “a” above. There would **no impact** on these resources.

- d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

The Districts service area is dominated by agricultural lands. Since only existing facilities would be used to convey Landowner-purchased water for recharge and banking, there would be **no impact** to corridors of natural habitat that facilitate fish or wildlife movement, or wildlife nursery sites. Terrestrial wildlife may travel along existing agricultural roads and through orchards and vineyards, however, these potential travel routes would not be disturbed by continued use of existing conveyance facilities. Additionally, the project would not disturb any agricultural lands. Landowners would be responsible for the construction, maintenance and repair of established recharge facilities on their privately-owned land. Since no new construction would take place, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, and there would be **no impact** on established native resident or migratory wildlife corridors or native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. There would be **no impact**.

a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

A small portion of the Districts boundary overlaps with the Metropolitan Bakersfield Habitat Conservation Plan (HCP) (City of Bakersfield 2017). However, the project does not require construction of any kind that would have the potential to infer with the objectives of the HCP. Additionally, the District does not service the HCP. Therefore, implementing the proposed project would have **no impact** related to potential conflict with an adopted HCP, Natural Community Conservation Plan, or other approved conservation plan.

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3.5 Cultural Resources

#5. CULTURAL RESOURCES. Would the project:

#5 -a. Cause a substantial adverse change in the significance of a historical resource pursuant to CCR Section 15064.5?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#5 -b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#5 -c. Disturb any human remains, including remains interred outside of dedicated cemeteries?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.5.1 Environmental Setting

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historic, architectural, archaeological, cultural, or scientific importance. CEQA defines a “historical resource” as any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR).

Prehistoric Context

Evidence for early occupation of the San Joaquin Valley is diffuse and ephemeral. Changing climate at the end of the Pleistocene brought floods, which covered much of the Central Valley with layers of alluvial soils and buried evidence of human occupation. People living in the San Joaquin Valley during this time are posited to have been hunters and foragers, living in small groups, and travelling often from camp to camp in response to seasonal availability of resources. Sites are expected to have been primarily located along lakesides (Fredrickson 1994) with the ancient shores of Tulare Lake the nearest location for discovery of Lower Archaic period sites (Wallace and Riddell 1991).

As the climate continued to warm during the Middle Archaic, the Tulare Lake shoreline to receded (Davis 1999) and settlement patterns become more stable, especially along river corridors (Rosenthal et al. 2007). During the Middle and Upper Archaic periods, the Windmill Pattern was common throughout the Central Valley, extending south as far as Buena Vista Lake (Rosenthal et al. 2007). This archaeological pattern is identified by burial style, where individuals were interred in extended positions, oriented towards the west, and often buried with artifacts such as quartz crystals, red pigment (ochre or cinnabar), Olivella shell beads (particularly types A1a and L), abalone (Haliotis) beads (type M) and pendants, stone pipes, charmstones, large, leaf-shaped projectile points associated with the atlatl, bone tools (e.g., awls, needles, strigles), baked-clay net weights, and ground stone tools (mortars, pestles, millingstones, and manos) (Moratto 1984).

The Upper Archaic period began at roughly the same time as the Late Holocene, ushering in a period of cooler, wetter conditions. More alluvium was deposited over the earlier archaeological sites as rivers and lakes grew and flooded. Cultural diversity and complexity both developed during the Upper Archaic, and new variation is seen in burial contexts, artifact styles, bead types, and ground stone tool forms.

While many sites dating to the Upper Archaic have been recorded in the Sacramento Valley and northern San Joaquin Valley, very few have been found from the southern San Joaquin Valley where the Project is located (Rosenthal et al. 2007); however, two, year-round village sites in Kern County, near Buena Vista Lake, and approximately 60 miles southwest of Porterville, suggest that settlement patterns became much more sedentary during this period (Hartzell 1992).

The Emergent Period was a time of economic development, including the expansion of trade networks, the development of social inequity, and the introduction of clamshell disc beads as a symbolic currency (Fredrickson 1994). Pottery was obtained in the Tulare basin through trade with tribes in the foothills and to the north (Wallace 1990). The bow and arrow was introduced, and new styles of smaller projectile points were developed; in southern San Joaquin Valley, the most common were Cottonwood style points.

Ethnographic Context

The Project is situated in the ethnographic territory of the Southern Valley Yokuts, specifically the Wowol (Cook 1955:75; Wallace 1978). Neighboring Southern Valley Yokuts tribes, all within the Tulare Lake Basin, included the Tachi and Chunut. Cook estimates the population of these three Yokuts tribes at 6,500 before European contact but had been reduced to 1,100 by 1852 (1955:44).

Historic Context

Kern County

Kern County was established in 1866 and Bakersfield became the County seat in 1874. As early as the 1770s, Spanish explorers Don Pedro Fages and Father Francisco Garces passed through the region. Father Zalvidea and Lt. Francisco Ruiz were part of another survey expedition in the early 19th century. They were followed by fur trappers Jedediah Strong Smith and Kit Carson and later John C. Fremont and his expedition in the mid-1840s (Kern County Centennial Observance Committee 1966:9; Elliott 1883:102, 111–112).

In 1851, gold was discovered near the Kern River and gold mining became a dominant activity in the county, especially in the mountains and the desert. Later many of the miners settled in the flatlands and turned to agriculture and livestock as a more suitable means of sustaining a living. In time, the locals constructed small canals and ditches to allow for farming. With irrigation improvements in place, farmers planted crops and agriculture soon became the primary driver of the economy. Agriculture and oil remained a mainstay of the county through the 20th century. Presently, the economy of the county is largely based on agriculture and petroleum extraction (Kern County 1966: 21, 23, 77, 117–118).

By the 1860s, oil was discovered in the county. Small communities near the oil fields grew into the towns of Whiskey Flat, later Kernville, Buttonwillow, Bakersfield, Oil City, Oil Center, and Oildale were founded near the oil fields. Further settlement was encouraged by the passage of the Desert Land Act of 1877 that promoted the development of the arid lands of the west. The Southern Pacific Railroad laid tracks near Bakersfield in 1877 and a few years later the San Francisco and San Joaquin Valley Railroad, later Santa Fe Railroad arrived in the area. Starting in the 1930s, Kern County became home to thousands of settlers who fled the Dust Bowl in the Midwestern United States (Morgan 1914:35). Agriculture and oil remained a mainstay of the county through the 20th century.

Irrigation

Cattle ranching and wheat farming remained the predominant agricultural pursuits in the Valley into the 20th century based largely on improved irrigation methods. Irrigation systems were typically beyond the financial means of individual farmers and arrangements related to the development of irrigation features were often made with the community and local institutions. These generally fell into four categories, private water companies, land colonies, mutual water companies, and irrigation districts representing the largest acreage and the most critical to the successful development of large-scale irrigated agriculture in the state. Irrigation transformed the Valley landscape and created one of the nation's most productive agricultural region (JRP and Caltrans 2000 12 13).

By the early 20th century, much of the flow of the Kern River was redirected through canals and ditches and by 1910 all the surface-water supplies in the Valley was diverted, which resulted in the development of ground-water resources. By 1955, nearly one-fourth of the total ground water obtained for irrigation in the U.S. was pumped in the Valley, a trend that continued into the 1960s. With the completion of federal and state projects, including the Delta-Mendota Canal, Friant-Kern Canal, and the California Aqueduct, cheaper water was available to irrigate agricultural crops (Galloway and Riley 1999:23–24, 27–29).

Friant-Kern Canal

As part of the Central Valley Project (CVP), the Friant-Kern Canal (FKC) delivers water for irrigation to Kern, Tulare, and Fresno counties. The concrete lined canal carries water from the Friant Dam at Millerton Lake near Fresno to the Kern River near Bakersfield. Construction on the FKC started in 1949 and was completed in 1951. At 151 miles long, it is the longest canal in California (Reclamation 2007: 31, 62).

Cawelo Water District

The District was formed in 1965 to obtain water supplies to supplement the pumping of groundwater for irrigation. Prior to its creation, water for irrigation was obtained from groundwater sources, which lowered the levels on an average of 10 feet each year (District 2014:19). Today, the District includes 45,000 acres and provides irrigation water to 34,000 acres of those acres, mostly orchards, vineyards, and other crops (District 2017). To service its customers, the District has constructed extensive facilities used to convey and distribute imported surface water. The

facilities include deep wells, lined canals, main and lateral pipelines, five reservoirs, and pump stations, including those in the A.P.E. for this Project, which were constructed after 1968, but before 2009 (District 2014:21–22; USGS 1968; 1970; NetrOnline 2017).

3.5.2 Methods

Since the proposed project involves no ground disturbance, the cultural resources investigation carried out for the proposed project includes review of historic maps and ethnographic documents and archival research conducted for a recent District project, hereby incorporated by reference and summarized below (GEI 2017).

3.5.3 Findings

The project would occur throughout the District but is limited to using existing facilities and does not include any ground disturbance. Further, the project would include the same types of activities, water conveyance, which are a normal part of District activities and use of existing facilities; the project therefore would have no impact on any archaeological resources. The project would include use of several existing facilities some of which, such as the FKC, have been found eligible for listing in the National Register of Historic Places and therefore automatically eligible for listing in the CRHR. The resource is also considered a historical resource for the purposes of CEQA. The project, however, does not include modification to any existing facilities including the FKC and project activities are not different from normal activities. The FKC would retain its historical significance and integrity. The project, therefore, would have **no impact** on historical resources.

3.5.4 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to in CCR Section 15064.5?

Under CEQA, public agencies must consider the effects of their actions on “historical resources.” CEQA defines an “historical resource” as any resource listed in or determined to be eligible for listing in the CRHR. The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California Historical Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (California Public Resource Code (PRC) Section 5024.1, 14 CCR Section 4850).

The eligibility criteria for listing in the CRHR are similar to those for NRHP listing but focus on importance of the resources to California history and heritage.

A cultural resource may be eligible for listing on the CRHR if it:

1. is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage
2. is associated with the lives of persons important in our past

3. embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual or possesses high artistic values
4. or has yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting one or more of the above criteria, resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

Since the project would involve only the use of the District's existing conveyance and distribution facilities and would not involve any land disturbance, there is no potential effects to cultural resources. There would be **no impact**.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?

The state CEQA Guidelines require consideration of unique archaeological resources (CCR Section 15064.5). As used in California PRC Section 21083.2, the term "unique archaeological resource" refers to an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
- has a special and particular quality such as being the oldest of its type or the best available example of its type
- or is directly associated with a scientifically recognized important prehistoric or historic event or person

As mentioned in Question "a" implementation of the project would not disturb any land. The project would use existing infrastructure to achieve the project objectives. Additionally, landowners would be responsible for the construction, maintenance, and repair of Landowner-recharge facilities located on private land. Therefore, there would be **no impact**.

c) Disturb any human remains, including remains interred outside of dedicated cemeteries?

Since the project would not involve land disturbance, there is no chance that the project would disturb any human remains, including remains interred outside of a dedicated cemetery. There would be **no impact**.

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3.6 Energy

#6. ENERGY. Would the project:

#6 -a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#6 -b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.6.1 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The project would not involve wasteful, inefficient, or unnecessary consumption of energy resources. The proposed project does not include construction of any kind. The existing District-owned water conveyance infrastructure, and potentially the District’s recharge facilities, would be used as part of the proposed project. During operation of the project, a minimal amount of additional energy may be necessary to convey Landowner-purchased water through the District’s distribution system. However, the proposed project would indirectly reduce energy consumption in the basin, because the project supports maintaining groundwater levels and sustainability in the area, which would contribute to a reduced need for energy to pump groundwater in the future. Since the proposed project would not cause a significant increase in electrical demand compared to current conditions, the proposed project would have no adverse impacts to energy consumption during the operations phase. There would be a **less-than-significant impact**.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

The proposed project does not conflict with any state or local plans regarding renewable energy or energy efficiency. There would be **no impact**.

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3.7 Geology and Soils

#7. GEOLOGY AND SOILS. Would the project:

#7 -a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
#7 -a. i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#7 -a. ii. Strong seismic ground shaking?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#7 -a. iii. Seismic-related ground failure, including liquefaction?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#7 -a. iv. Landslides?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#6 -b. Result in substantial soil erosion or the loss of topsoil?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#7 -c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

#7 -d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated),), creating substantial direct or indirect risks to life or property?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#7 -e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#7 -f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.7.1 Discussion

a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

i, ii, iii, iv) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.) Strong seismic ground shaking, Seismic-related ground failure, including liquefaction, or Landsides?

A portion of the District proposed project is located within an Alquist-Priolo Earthquake Fault Zone (mapped as an area of required investigation) or an area where strong seismic ground shaking or failure could occur. Faults that are partially or entirely contiguous with the project area include unnamed quaternary faults near Little Creek and Rag Gulch, the quaternary Pond-Poso Creek Fault, and historic Kern Front and Premier faults (D.O.C. 2010 and 2020a). However, the proposed project involves only the use of existing District distribution and recharge facilities, which have been designed to withstand local geologic conditions. No additional construction is proposed for project implementation. This impact would be **less-than-significant**.

b) **Result in substantial soil erosion or the loss of topsoil?**

There would be no earthmoving or other construction associated with the proposed project that could cause erosion or the loss of topsoil. There would be **no impact**.

c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

The proposed project is also not located in a liquefaction or landslide zone (D.O.C. 2020b). The flat topography characteristic of the project vicinity and the lack of earthmoving or other

construction activity associated with the proposed project precludes the incidence of landslides, subsidence, lateral spreading, and the possibility of collapse caused by construction. There would be **no impact**.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Soils underlying the District are primarily comprised of loams, sandy loams, loamy sands and areas of clay loam along the far eastern portion of the District. In general, these soils are deep, well-drained, and low in clay content and therefore not considered expansive (NRCS 2020). There would be **no impact**.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The proposed project would not involve construction or use of septic tank or alternative wastewater systems. There would be **no impact**.

b) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The District overlies generally Quaternary-period alluvial fan, basin, and marine terrace deposits from the Pleistocene-Holocene epochs (D.O.C. 1978). In general, most sedimentary rock formations that are of Pleistocene age or older throughout the Central Valley, are paleontologically sensitive. However, there would be no earthmoving or other construction associated with the proposed project therefore there is no possibility of destroying or otherwise affecting unique paleontological resources. There would be **no impact**.

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3.8 Greenhouse Gas Emissions

#8. GREENHOUSE GAS EMISSIONS. Would the project:

#8 -a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#8 -b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.8.1 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The Environmental Protection Agency’s (EPA’s) mandatory reporting threshold for large sources of greenhouse gas emissions (GHGs) is 25,000 metric tons of carbon dioxide (C.O.2.) emitted annually. This threshold is approximately the amount of C.O.2. generated by 5,281 passenger vehicles per year (EPA 2018). The project would not require construction of any kind. During operation of the project, a small amount of additional energy may be necessary to convey Landowner-purchased water through the District’s distribution system.to convey the additional stored water to Landowners from the District facilities, and to the District from the Landowners privately-owned recharge facilities. However, greenhouse gas emissions as a result of the project would not represent a substantial change in C.O.2. production. Therefore, this impact would be **less than significant**.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Kern County does not have any local plans, policy’s, or regulations adopted to reduce GHG, however, the project would not conflict with state emissions reduction plans, policies or regulations. Therefore, there would be **no impact**.

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3.9 Hazards and Hazardous Materials

#9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

#9 -a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#9 -b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#9 -c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#9 -d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#9 -e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#9 -f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#9 -g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.9.1 Discussion

- a, b) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Implementation of the proposed project would not require the use, transport, or storage of hazardous substances beyond what is currently necessary for maintenance of the District's distribution system. Ongoing system maintenance could involve the use and storage of hazardous materials (e.g., fuels, fertilizers, insecticides), but use and storage would not increase as a result of the project. Continued compliance with the existing usage, safe handling, and disposal requirements identified by the manufacturer along with compliance with applicable federal, state, and local regulations would limit the potential for an accident condition to occur that involves the release of hazardous materials into the environment. Since maintenance of existing facilities would remain similar to the current conditions, this impact would be **less-than-significant**.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

The Lerdo Primary School and two flight schools including Take Flight LLC and SRT Helicopters are located within the District boundaries. Continued compliance with the existing usage, safe handling, and disposal requirements identified by the manufacturer along with compliance with applicable federal, state, and local regulations would limit the potential for an accident condition to occur that involves the release of hazardous materials within one-quarter mile of a school within the District's boundaries. This impact would be **less-than-significant**.

- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

The database search included all data sources included in the Cortese List (enumerated in PRC Section 65962.5). These sources include the GeoTracker database, a groundwater information management system that is maintained by the State Water Resources Control Board (SWRCB); the Hazardous Waste and Substances Site List (i.e., the EnviroStor database), maintained by the California Department of Toxic Substances Control (DTSC); and EPA's Superfund Site database (DTSC 2020a and 2020b, SWRCB 2020a and 2020b, CalEPA 2020, EPA 2020). The search identified several sites within the District boundary; however, the project has no potential to be impacted by these sites as the project would not require construction of any additional infrastructure or buildings. Landowners would be responsible for the construction, maintenance, and repair of recharge facilities established on private property. Therefore, there would be **no impact**.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

There are three airports located adjacent to the District service area, the Shafter-Minter Airport, the Poso-Kern County Airport, and The Mayors Airport (Kern County 2012). However, the project would not require the construction of any new infrastructure or buildings within close proximity of an established airport. Therefore, the project would not expose residents or District employees in the area to excessive noise levels associated with continued operation of District conveyance facilities. There would be **no impact**.

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

The proposed project does not include any activities that would impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. There would be **no impact**.

- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

The proposed project does not include any activities that would increase the risk of wildland fire and the District is not located within a very high fire hazard severity zone (CalFire 2007a and 2007b). There would be **no impact** related to wildfire risk.

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3.10 Hydrology and Water Quality

#10. HYDROLOGY AND WATER QUALITY. Would the project:

#10 -a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#10 -b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? Yes.	Have No Impact? No.
#10 -c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#10 -c. i. result in substantial erosion or siltation on- or off-site;	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#10 -c. ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#10 -c. iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#10 -c. iv. impede or redirect flood flows?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

#10 -d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#10 -e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.10.1 Environmental Setting

The proposed project is located within the jurisdiction of the Central Valley Regional Water Quality Control Board’s (CVRWQCB) Water Quality Control Plan for the Tulare Lake Basin (Basin Plan) [within the North Kern and Kern Uplands hydrologic areas (CVRWQCB 2018) and within the high-priority, critically-overdrafted Kern County groundwater subbasin (5-22.14), as designated in the Department of Water Resources (DWR) Bulletin 118 (DWR 2016, DWR 2020).

3.10.2 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

There are two waste discharge requirements (WDR) applicable to the water conveyance activities proposed as part of this project: CVRWQCB Order R5-2012-0059 - WDR General Order for Valley Water Management Company and Cawelo Water District Produced Water Reclamation Project, Kern Front No. 2 Treatment Facility and CVRWQCB Order R5-2012-0058 - WDR General Order for Chevron USA, Inc. and Cawelo Water District Produced Water Reclamation Project, Kern River Area Station 36 (CVRWQCB 2012a and 2012b). Both orders allow certain oilfield produced water (OPW) to be conveyed via pipeline to the District’s existing Reservoir B, where it is blended with surface water and pumped groundwater. This water is used to irrigate farmland within the District, and when there is insufficient off-season irrigation demand, discharge from Reservoir B can be used for groundwater recharge. Under the proposed project, water from the Kern River, Poso Creek, SWP Article 21 (California Aqueduct), and/or Friant 215 supplies would be comingled with existing District water supplies, including OPW allowed under the orders, as described above, and conveyed through existing District facilities for groundwater recharge and banking purposes.

Additionally, another existing WDR is applicable to the District agricultural water drainage compliance. Although there would be no agricultural water drainage associated with the proposed project, the WDR does include monitoring of groundwater. Data collected from implementation of the CVRWQCB WDR General Order for Growers within the Tulare Lake Basin Area that are Members of a Third-Party Group, Order R5-2013-0120, revised February 2020 (CVRWQCB

2013), may be used by the District for monitoring or informational purposes under the proposed project.

There would be **no impact** associated with violation of waste discharge requirements under the proposed project.

Surface Water

Currently, the District monitors imported surface water quantity and quality (monthly), primarily at District pumping stations that intake SWP and Kern River Water. The California Department of Water Resources also regularly monitors water quality at several locations along the California Aqueduct and Reclamation conducts routine water quality testing along the Friant-Kern Canal. These data are shared with and used by the District. The District's current water measurement practices and protocols are consistent with Water Code requirements as documented in the District's Agricultural Water Management Plan (AWMP) (District 2015) and would continue under the proposed project.

Potential surface water sources that may be used for the proposed project were analyzed to ascertain the potential effects of using the District's existing infrastructure to convey Landowner-purchased water to recharge areas. Although water quality information pertaining to the possible sources for Landowner-purchased water are limited in the project vicinity, available information associated with water quality at three locations nearby the project, Poso Creek (at Zerker), the Kern River (at Calloway Weir), and Calloway Canal at Highway 46, was compared with the District's AWMP goals and standards set forth in the Basin Plan. As shown in Table 3-3, the three data points report water of a quality that would meet AWMP and Basin Plan standards. Since water would be imported from sources that meet or exceed AWMP or Basin Plan standards, conveyance of this surface water through District facilities, is not expected to substantially degrade surface water quality or violate water quality standards. This impact would be **less than significant**.

Groundwater

The use of existing District facilities to convey water for recharge and banking would not directly impact groundwater quality, since no ground disturbing activities, dewatering, or earthmoving would occur. However, potential indirect effects could occur. Generally, groundwater in the District contains both naturally occurring and anthropogenic constituents. Cawelo's GSP includes general water quality maps (see Attachment 2 to Appendix A) in the study area which demonstrate that nitrate and TDS are currently higher in the western portion of the District. The Groundwater Quality Assessment Report (G.A.R.) (CWDC 2015) for the District also reported the western portion as areas of high vulnerability (see Attachment 3 to Appendix A) due to confirmed water quality exceedances.

Analysis conducted for issuance of WDR R5-2012-0058 and WDR R5-2012-0059, detailed above, show that use of this water will result in water quality that is between background concentrations and appropriate groundwater quality limits for chloride, boron, salinity and sodium.

Additionally, the proposed project would convey water for recharge that meets or exceeds AWMP or Basin Plan standards for surface water, therefore the proposed project would not degrade groundwater quality. The Project may improve groundwater quality in some areas of the District, by applying surface water of a higher quality than that of the existing groundwater. Therefore, the indirect impact of the proposed project on groundwater quality would have **no impact** to groundwater quality.

Table 3-3. Evaluation of Surface Water Sources

Water Quality Constituent	Units	Drinking Water Standard/ Tulare Lake Basin Plan Limit	AWMP Quality Goals	Poso Creek at Zerker			Calloway Weir (Kern River)			Calloway Canal at Highway 46			Friant-Kern Canal		
				Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
Arsenic	ppb	10	100	8.04	8.35	8.19	n/a	n/a	n/a	3.9	4.6	4.23	No public data available		
Boron	ppb	1000 (NL)	700	53.2	73.6	63.4	n/a	0.13	n/a	0.044	0.079	0.057			
Sodium	ppm	n/a	69	n/a	n/a	n/a	n/a	15	n/a	n/a	n/a	n/a			
TDS	ppm	500	450	148	230	190.5	n/a	100	n/a	249	270	257.6			
Chloride	ppm	250	106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a			
Nitrate as N	ppm	10	10	n/a	n/a	n/a	n/a	ND	n/a	n/a	n/a	n/a			
Conductivity	uS/cm	900	700	220	338	268.5	93.9	201.5	124.2	368	404.2	382.4			

Source: CEDEN 2020

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b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The proposed project would indirectly benefit groundwater supply in the project area by facilitating increased groundwater recharge, contributing to sustainable groundwater management in the basin. This impact would be **less-than-significant**.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

- i, ii, iii, iv) Result in substantial erosion or siltation on- or off-site; Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or Impede or redirect flood flows?**

The proposed project does not include new construction. Therefore, the existing drainage pattern would not be altered, and erosion and surface runoff would not be increased by the proposed project. No new above-ground structures are proposed as part of the project and only the District's existing conveyance and distribution system would be used under the proposed project. Since no new structures would be constructed, there is no possibility that the project would redirect flood flows. There would be **no impact**.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Portions of the District are located in Federal Emergency Management Agency (FEMA) Zone A and AE floodways and/or flood hazard areas with a 1% annual chance of flooding. However, under the proposed project, no new infrastructure is to be constructed that would place additional development or assets within a designated flood hazard area which could increase risk to life and property. The site is not located within an area that would be affected by tsunami or seiche (FEMA 2020; D.O.C. 2020). There would be **no impact**.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As detailed in Question a), above, the proposed project would not affect implementation of the water quality control plan (Basin Plan) for this area, as there would be no discharge to surface waters. There would be **no impact**.

The District participates in multiple existing monitoring programs and additional monitoring is proposed under implementation of the District's Groundwater Sustainability Plan (GSP) as required by the SGMA (Todd Groundwater 2019).

The District commenced a Groundwater Monitoring Program in the fall of 1979 that uses 55 wells within the District that were selected for monitoring and mapping of groundwater levels on a semi-annual basis. The monitoring program was expanded in 1985 and currently groundwater levels are measured in approximately 250 wells semiannually. The data obtained in the spring (normally February) reflects the "seasonal high" water table as measurements are made prior to significant pumping. The data obtained in the fall (normally October), after a full season of agricultural irrigation pumping, indicates the "seasonal low" water levels.

Beginning in 2009, DWR developed and has coordinated the California Statewide Groundwater Elevation Monitoring (C.A.S.G.E.M.) Program, which has tracked seasonal and long-term groundwater elevation trends in groundwater basins statewide in collaboration with local monitoring entities. The District is the local C.A.S.G.E.M. monitoring entity and registered in the C.A.S.G.E.M. database; the program includes regular measurement of seven wells in the Cawelo GSA. C.A.S.G.E.M. data are available from CWD and from DWR's Groundwater Information Center Interactive Map (G.I.C.I.M.A.), a database that collects and stores groundwater elevations and depth-to-water measurements. C.A.S.G.E.M. data are incorporated into the District's monitoring program.

Monitoring

The District maintains an extensive water quality monitoring database that reflects distinct programs that monitor water quality for groundwater, surface water, imported water, and treated produced water. The District also conducts groundwater monitoring programs to satisfy the requirements of existing WDRs.

Although the use of produced water is not part of the proposed project, the water quality information collected under CVRWQCB Order R5-2012-0059 - WDR General Order for Valley Water Management Company and Cawelo Water District Produced Water Reclamation Project, Kern Front No. 2 Treatment Facility and CVRWQCB Order R5-2012-0058 - WDR General Order for Chevron USA, Inc. and Cawelo Water District Produced Water Reclamation Project, Kern River Area Station 36 (CVRWQCB 2012a and 2012b) is valuable for understanding District-wide groundwater quality. Groundwater quality is monitored for multiple constituents, including pH, salinity, arsenic, boron, chloride, and sodium under the requirements of the Monitoring and Reporting Program associated with both OPW WDRs, described above.

Additionally, although there would be no agricultural water drainage associated with the proposed project, data collected from implementation of the CVRWQCB WDR General Order for Growers within the Tulare Lake Basin Area that are Members of a Third-Party Group, Order R5-2013-0120, revised February 2020 (CVRWQCB 2013), does include monitoring of groundwater. Under the agricultural water drainage WDR, annual sampling is conducted of District-owned and some private wells (District 2015). Water samples are collected annually from designated wells and analyzed for constituents of concern including nitrate, salinity, arsenic, and other water quality constituents. This information is compiled and reported to the CVRWQCB per the requirements of the WDR. Additionally, groundwater pumped from the District deep wells is sampled in years

of heavy use—typically during years of reduced surface water supplies. Requirements for evaluating and protecting groundwater quality established by the agricultural water drainage WDR include preparation of the following: G.A.R., Comprehensive Groundwater Quality Management Plan, Groundwater Quality Trend Monitoring Program, and a Management Practices Evaluation Program.

SGMA provides the option for Groundwater Sustainability Agencies (GSAs) to define management areas for portions of basins to facilitate groundwater management and monitoring. A management area is defined in SGMA as an “area within a basin for which the [GSP] may identify different minimum thresholds, measurable objectives, type, geology, aquifer characteristics, or other factors” [CCR Title 23, Division 2, §351(r)].

At this time, the entire Cawelo GSA is treated as a single management area within the Kern County Subbasin for the purposes of defining sustainability criteria, including degradation of water quality and chronic lowering of groundwater levels. Section §354.28(c)(2) of the SGMA regulations states that undesirable results from degraded water quality are defined on the basis of the number of supply wells, a volume of water, or a location of an isocontour that exceeds concentrations of constituents determined by the Agency to be of concern for the basin.

In the GSP, the District identifies minimum thresholds, measurable objectives, and interim thresholds to be met during the implementation timeframe of the GSP. SGMA defines “minimum thresholds for degraded water quality shall be the degradation of water quality, including the migration of contaminant plumes that impair water supplies or other indicator of water quality as determined by the Agency that may lead to undesirable results.”

Under the District’s GSP, the undesirable result for the chronic lowering of groundwater levels is a result that causes significant and unreasonable reduction in the long-term viability of domestic, agricultural or municipal beneficial uses over the planning and implementation horizon of the GSP. In the GSP, the District identifies minimum thresholds, measurable objectives, and interim thresholds to be met during the implementation timeframe of the GSP. The minimum thresholds presented in the District’s GSP for the chronic lowering of groundwater levels are selected to represent water levels that are just above conditions that could generate significant and unreasonable undesirable results in the Kern County Subbasin, to the extent possible given available information.

In addition to the existing groundwater monitoring described above, and to support working toward groundwater sustainability in the basin, the District has identified 8 wells to be used specifically as the monitoring network under the Cawelo GSP. Monitoring would occur using the 8 monitoring wells (7 current wells, 1 proposed to be added) as described in **Table 3-4**. These monitoring wells represent a uniform spatial distribution over the mainly agricultural portion of the District and were chosen based upon their location as it relates to cropping pattern recharge, domestic well locations, and the completeness of monitoring well information.

Table 3-4. Monitoring Well Network in the Cawelo GSA

Well ID	Well Type	Monitoring Purpose	Data Collection Frequency	Historical Low Water Level (Elevation, feet)	Minimum Threshold (Elevation, feet)
T26R26-24R	agricultural production well	Levels & Quality	Levels: semi-annual, Quality: annual	35	-43
T27R26-4R	agricultural production well	Levels & Quality	Levels: semi-annual, Quality: annual	75	-3
T27R26-12H	agricultural production well	Levels & Quality	Levels: semi-annual, Quality: annual	103	25
T27R26-33C2	agricultural production well	Levels & Quality	Levels: semi-annual, Quality: annual	20	-64
T28R26-11M	agricultural production well	Levels & Quality	Levels: semi-annual, Quality: annual	3	-81
T28R27-6C	agricultural production well	Levels & Quality	Levels: semi-annual, Quality: annual	-1	-85
T28R27-28L	agricultural production well	Levels & Quality	Levels: semi-annual, Quality: annual	110	26

C.U. – Currently unavailable.

Source: CWD 2019

Under the proposed project, the District would continue all existing groundwater monitoring programs, and would also conduct additional monitoring of wells as identified in the GSP and described above. Additionally, implementation of the proposed project would indirectly contribute to fulfillment of several project and management actions developed in the GSP to help address overdraft and move the Basin toward sustainability, including:

- **Project #2: Increase Groundwater Recharge and Banking Capacity: under which** The Cawelo GSA will implement projects or programs to increase recharge capacity to capture and recharge additional wet year high flow waters to store for future use.
- **Management Action #1: Voluntary Land Use Conversion:** The Cawelo GSA will develop a program to incentivize landowners to reduce their total crop demand by converting farmed land to groundwater recharge areas. This would reduce demands and the increased recharge capability could increase supplies.

The use of existing District facilities to convey water for recharge and banking would not conflict with or obstruct implementation of a sustainable groundwater management plan. Implementation of the proposed project would indirectly benefit the District by facilitating in-District groundwater recharge and banking that would offer operational flexibility for implementing the District’s GSP, and would contribute to meeting or exceeding SGMA sustainability criteria for reducing degradation of water quality and chronic lowering of groundwater levels. Specifically, the subject project is in line with Project 2 and Management Action #1 of the GSP to have Voluntary Land Use Conversion to reduce demand in dry years and increase recharge and banking capacity in the District. This would have **no detrimental impact** and would support successful implementation of the sustainable groundwater management plan.

3.11 Land Use and Planning

#11. LAND USE AND PLANNING. Would the project:

#11 -a. Physically divide an established community?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#11 -b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.11.1 Discussion

a, b) Physically divide an established the community? Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The District services 45,000 acres, most of which are highly developed agricultural land. The project would not require any new developments that could divide an established community. The project would use the Districts existing infrastructure to achieve the project objectives; to increase flexibility in meeting water demands while also protecting groundwater levels and quality. A small portion of the District boundary overlaps the Metropolitan Bakersfield HCP; however, the project would not conflict with the objectives of the conservation plans (City of Bakersfield 2017). Additionally, the project would not conflict with any land use plans as zoning would not change due to implementation of the project. There would be **no impact**.

3.12 Mineral Resources

#12. MINERAL RESOURCES. Would the project:

#12 -a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#12 -b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.12.1 Discussion

a, b) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The District is located in an area evaluated for Aggregate Materials in the Bakersfield Production-Consumption Region. A few small areas within the District’s service area have been identified as Mineral Resource Zones (MRZ) 1 (Little Likelihood for the Presence of Significant Mineral Resources) or MRZ-2 (Significant Mineral Deposits Present) (D.O.C. 2009). However, since the proposed project involves only existing infrastructure, and no new development would occur that would result in the loss of or preclude the recovery of an important mineral resource, there would be **no impact**.

3.13 Noise

#13. NOISE. Would the project:

#13 -a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable standards of other agencies?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#13 -b. Generation of excessive groundborne vibration or groundborne noise levels?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#13 -c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.13.1 Discussion

a, b) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable standards of other agencies? Generation of excessive groundborne vibration or groundborne noise levels?

The project would be implemented within the District service area, which predominately consists of agricultural land. The project would not require the construction of any new infrastructure or buildings. The existing District-owned conveyance system and recharge facilities would be sufficient for project implementation and would not generate any additional noise or vibration during use for conveyance of Landowner-purchased water. Thus, there would be no substantial increase in ambient noise levels or groundborne vibration or noise levels due to implementation of the project. There would be **no impact**.

c) For a project located within-the vicinity of a private airstrip or-an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

See Section 3.9 Hazards and Hazardous Materials, Question “e”. There would be **no impact**.

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3.14 Population and Housing

#14. POPULATION AND HOUSING. Would the project:

#14 -a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#14 -b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.14.1 Discussion

a, b) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed project would not facilitate or result in new population growth in the area and thus would not require additional housing, roads or other development-related infrastructure. In addition, the project would result in no new long-term employment for the area that may necessitate growth. The project could indirectly result in a long-term increase in water supply; however, this water would only be used for agricultural purposes and would not sustain an increased population. There would be **no impact** to population and housing.

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3.15 Public Services

#15. PUBLIC SERVICES. Would the project:

#15 -a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
Police protection?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
Schools?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
Parks?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
Other public facilities?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.15.1 Discussion

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of**

which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

The proposed project is located within the District boundaries, in the unincorporated area of Kern County. The District is comprised mostly of active agricultural lands. No new structures or land uses would result from project implementation, therefore there would be no need for modifications to police protection, or requirements for additional schools or park facilities. There would be **no impact**.

3.16 Recreation

#16. RECREATION. Would the project:

#16 -a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#16 -b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.16.1 Discussion

a, b) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated or include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No recreational facilities exist in the District service area. Additionally, the proposed project would not increase the area population nor otherwise affect the construction, use, or need for expansion of nearby recreational facilities. There would be **no impact**.

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3.17 Transportation

#17. TRANSPORTATION. Would the project:

#17 -a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#17 -b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#17 -c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#17 -d. Result in inadequate emergency access?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.17.1 Discussion

a, b, c, d) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)? Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? Result in inadequate emergency access?

The project would not conflict with any program plan, ordinance, or policies related to the circulation system. The project would not require and new construction that would generate vehicles miles traveled or increase hazards due to a geometric design feature or incompatible uses. Since the project would not create any new facilities, or require construction that would increase vehicle usage, the project would not result in inadequate emergency access. Therefore, the project would result in **no impact** to transportation reliability or emergency access.

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3.18 Tribal Cultural Resources

#18. TRIBAL CULTURAL RESOURCES. Would the project

<p>#18 -a. cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p>				
<p>#18 -a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or</p>	<p>Have Potentially Significant Impact? No.</p>	<p>Have Less-than-Significant Impact with Mitigation Incorporated? No.</p>	<p>Have Less-than-Significant Impact? No.</p>	<p>Have No Impact? Yes.</p>
<p>#18 -b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	<p>Have Potentially Significant Impact? No.</p>	<p>Have Less-than-Significant Impact with Mitigation Incorporated? No.</p>	<p>Have Less-than-Significant Impact? No.</p>	<p>Have No Impact? Yes.</p>

3.18.1 *Environmental Setting*

Refer to the “Ethnographic Setting” in Section 3.8, “Cultural Resources.”

3.18.2 *Methods and Findings*

On August 7, 2020, the District mailed an AB 52 consultation letter to the Kern Valley Indian Council which has previously contacted the District and requested consultation under Assembly Bill 52 (PRC Section 21080.3.1). No responses to Tribal consultation letters were received by the District. Refer to Appendix B for consultation information.

3.18.3 *Discussion*

a, b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k)? A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in

subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Tribal Cultural Resources are either (1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that is either on or eligible for inclusion in the CRHR or a local historic register; or (2) a resource that the lead agency, at its discretion and supported by substantial evidence, chooses to treat as a Tribal Cultural Resource. Additionally, a cultural landscape may also qualify as a Tribal Cultural Resource if it meets the criteria to be eligible for inclusion in the CRHR and is geographically defined in terms of the size and scope of the landscape. Other historical resources (as described in California PRC 21084.1), a unique archaeological resource (as defined in California PRC 21083.2[g]), or non-unique archaeological resources (as described in California PRC 21083.2[h]), may also be a Tribal Cultural Resource if it conforms to the criteria to be eligible for inclusion in the CRHR.

The project would not require the construction of any new infrastructure or buildings, therefore, there is not potential for a substantial adverse impact to tribal cultural resources. There would be **no impact**.

3.19 Utilities and Service Systems

#19. UTILITIES AND SERVICE SYSTEMS. Would the project:

#19 -a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#19 -b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#19 -c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#19 -d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#19 -e. Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.19.1 Discussion

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

No utility services would need to be constructed or expanded as a result of the project. The project would use the existing District-owned water conveyance system and groundwater recharge facilities. The District would maintain first use of all District-owned facilities and would allow for Landowners to use their facilities when additional recharge space is available. Similarly, Landowners would have first use of all Landowner recharge facilities and would allow for the District to store additional surface water in their recharge facilities when additional space is

available. Establishment of this project would allow for increased flexibility in meeting water demands while protecting groundwater levels and quality. Additionally, the proposed project would not require or result in new or expanded wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. There would be **no impact**.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The proposed project would not require a water supply. The project would increase the water supply available for agricultural use by allowing Landowners to use the Districts water conveyance system and recharge facilities to store landowner-purchases surface water. Therefore, the project would have **no detrimental impact** on water supply available within the District. Additionally, Landowners would establish recharge facilities to store additional surface water under the Agreement. The District would be able to use Landowner recharge facilities when additional storage space is available, see Question “a” above. There would be **no impact**.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?

There are no wastewater facilities associate with the proposed project. There would be **no impact**.

d and e) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? Comply with Federal, State, and local management and reduction statues and regulations related to solid waste?

No solid waste would be generated from the project. Therefore, the project would comply with all state, federal, and local management and reduction statues and regulations. There would be **no impact**.

3.20 Wildfire

#20. WILDFIRE. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, **would the project:**

#20 -a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#20 -b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#20 -c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.
#20 -d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Have Potentially Significant Impact? No.	Have Less-than-Significant Impact with Mitigation Incorporated? No.	Have Less-than-Significant Impact? No.	Have No Impact? Yes.

3.20.1 Discussion

a, b, c, and d) Substantially impair an adopted emergency response plan or emergency evacuation plan? Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project would be implemented within the District service area, which is comprised mostly of active agricultural production. The District is not located within a very high fire hazard severity zone (CalFire 2007a and 2007b). Additionally, the project does not include any new developments.

Landowners would be responsible for the construction, maintenance, and repair of recharge facilities on their land. There would be **no impact** related to wildfire risk.

3.21 Mandatory Findings of Significance

#21. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:

<p>#21 -a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?</p>	<p>Have Potentially Significant Impact? No.</p>	<p>Have Less-than-Significant Impact with Mitigation Incorporated? No.</p>	<p>Have Less-than-Significant Impact? No.</p>	<p>Have No Impact? Yes.</p>
<p>#21 -b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</p>	<p>Have Potentially Significant Impact? No.</p>	<p>Have Less-than-Significant Impact with Mitigation Incorporated? No.</p>	<p>Have Less-than-Significant Impact? No.</p>	<p>Have No Impact? Yes.</p>
<p>#21 -c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>	<p>Have Potentially Significant Impact? No.</p>	<p>Have Less-than-Significant Impact with Mitigation Incorporated? No.</p>	<p>Have Less-than-Significant Impact? No.</p>	<p>Have No Impact? Yes.</p>

3.21.1 Discussion

- a) **Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?**

The analysis conducted in this IS concludes that implementing the proposed project would not have any of these potential significant impacts on the environment. As evaluated in Section 3.4, "Biological Resources," there would be no impact on biological resources because no new construction would occur under the proposed project. The proposed project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of an endangered, rare, or

threatened species. As discussed in Section 3.5, “Cultural Resources,” the proposed project would not eliminate important examples of the major periods of California history or prehistory. There would be **no impact**.

- b) Would the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

As discussed in this IS, the proposed project would result in **less-than-significant impacts, or no impacts** on aesthetics, agriculture and forestry, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, Tribal Cultural Resources, utilities and service systems, and wildfire.

Additionally, based on review of the Agreement and the District’s GSP, and an understanding of the current condition of groundwater resources in the region, the project would **have no detrimental impact** on local and regional groundwater sustainability and would support successful implementation of the District’s GSP. Because improvements to groundwater management can have regional implications, the proposed projects’ facilitation of groundwater recharge, and indirect positive effects on groundwater levels and quality could have a positive impact on implementation of nearby entities GSPs and improve regional water supply reliability, because groundwater recharge projects in a regional aquifer system have the potential for regional impact whether small, large, or cumulative. This project would be integral to increasing groundwater sustainability in the District by supporting reduced demand in dry years due to increased capacity for recharge and banking capacity in the District and would have a cumulatively considerable positive impact

- c) Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

The proposed project would result in no impacts for air quality and GHG emissions and would not cause substantial adverse effects on human beings, either directly or indirectly. There would be **no impact**.

4.0 References

Chapter 1. Introduction

No references cited.

Chapter 2. Project Background and Need

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Chapter 3. Environmental Checklist

Chapter 3.1. Project Information

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Chapter 3.2. Environmental Factors Potentially Affected

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Chapter 3.3. Determination

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Chapter 3.4. Aesthetics

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Chapter 3.5. Agriculture and Forestry Resources

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Appendix A – Groundwater Technical Memorandum

Technical Memorandum

To: Cawelo Water District
From: Matthew Mayry, PG, CHG,
GEI Consultants, Inc.
Date: August 5, 2020
Re: Hydrology Impacts of the Landowner Recharge and Banking Project

Introduction

This memorandum (memo) is prepared as an attachment to the Initial Study/Mitigated Negative Declaration (IS/MND) for Cawelo Water District's (District) project consideration of a local Landowner Recharge and Banking project (project).

This memo provides a response to three questions from the CEQA checklist regarding potential project impacts on hydrology:

- Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
- Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
- Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

This memo references the District's Landowner Banking Agreement (Agreement) dated March 3rd, 2020, and the District's groundwater conditions and management actions from the recently adopted Groundwater Sustainability Plan (GSP) (Todd Groundwater 2019).

Project Details

The project details summarized below are taken from the Agreement and are briefly described for context of how the project may impact groundwater supplies, recharge, and implementation of the sustainable groundwater management plan. This is not a comprehensive summary of the project, nor does this summary have any legal grounds or precedent pertaining to the Agreement. Refer to the Agreement for all project details.

Currently, the proposed landowner banking project is in early stages of planning and does not have defined locations and volumes of applied banking water. There are, however, sufficient details in the District's Landowner Banking Agreement to address the CEQA planning requirements for this project.

The project proposes that during wet years or years when surplus surface water is available, this surplus surface water can be used for the project purpose of groundwater banking. The

surplus water used for project banking will not include any of the District's allocated surface water used for current operations, supplies, or obligations; and it will not be water that is provided under the District's winter water program. The project will have no other purpose or intent than for percolation for groundwater banking, recharge, and later beneficial use.

Under the proposed project and within its parameters, landowners would be allowed to convey landowner owned surface water, acquired outside of the District, to recharge facilities, through existing District conveyance facilities. Where banking capacity is available, the District may also convey District surface water through the existing District conveyance system, for recharge in landowner-owned recharge facilities. The District will always maintain first priority use of its facilities for the District's other preexisting agreements and obligations, and the District will have sole discretion to make a final determination on Landowner's access to District recharge facilities.

The project proposes that landowners create at their sole cost and expense, the improvements necessary for landowner banking facilities. Under the Agreement, the District will have the ability to approve landowner land and landowner facilities for this project, and the District will not have liability with respect to the landowner banking facilities.

The landowner will be responsible for all costs and losses associated with acquiring and transporting landowner water to the District, including, for example, the procurement of any necessary permits such as environmental approvals. The District will make reasonable efforts to assist with delivery of landowner water provided that the deliveries will not interfere with District water supplies, its deliveries, its finances, or any of its water management program(s). The District maintains priorities of conveyance and District-owned facilities.

The landowners will be required to protect surrounding lands from adverse impacts related to banking facilities and operations.

The District will have sole discretion to determine if the proposed banking surface water supply is of sufficient water quality to be delivered into and through the District's distribution system. It is anticipated that water quality, at a minimum, will be equivalent to the quality for agricultural irrigation supplies typically provided by the District.

The Agreement states the benefits for the District, which include receiving credit for a percentage of all water banked under this Agreement, and there are strict rules for banking partners transfer of credits to others. Specifically, the Agreement defers to the conditions of federal, state, or local laws, rules, or regulations, including any Sustainable Groundwater Management Act (SGMA) GSPs, with regard to water "account" credit transferability.

The Agreement releases the District from indemnification and liability beyond the point of District delivery and clarifies that all parties to the Agreement will not make any future claims to future use of other's facilities.

Project Impact on Water Quality and Water Quality Control Plan

The proposed project, in accordance with the Agreement, would not result in violation of water quality standards. The project is expected to facilitate the conveyance, and ultimately recharge to the ground, a similar supply and quality of water to the District as is currently conveyed in the existing District's conveyances. As outlined in the Agreement, the District has the right to approve or disapprove of water based on water quality before it is used for the project purposes.

The proposed project is located within the jurisdiction of the Central Valley Regional Water Quality Control Board's Water Quality Control Plan for the Tulare Lake Basin [Kern County subbasin 256] (CVRWQCB 2018) The proposed project would not significantly affect implementation of the water quality control plan for this area, because, as stated in the Agreement, water used in the Program would have water quality that is at a minimum equivalent to agricultural irrigation supplies, which is, historically and at present, the dominant beneficial use in the study area. As detailed in Cawelo's Famoso Basins Antidegradation Analysis and modeling, historical recharge and discharge for groundwater banking of surface water was not expected to impair groundwater for agricultural beneficial uses (K/J, 2011).

The proposed project is located within the Kern County groundwater subbasin (DWR 2016), for which GSPs were submitted earlier this year. Cawelo's GSP reports well densities in the study area for domestic, production, and municipal wells (Attachment 1). In general, the production wells for agriculture make up the primary beneficial use; however, domestic and municipal wells are located in some sections of the District. As recharge facilities are proposed, effects on water quality with respect to domestic and municipal use should be considered. Cawelo's GSP includes general water quality maps (Attachment 2) in the study area which show that nitrate and total dissolved solids are higher in the western portion of the District. The Groundwater Quality Assessment Report (GAR) (CWDC, 2015) for the District also reported the western portion as areas of high vulnerability (Attachment 3) due to confirmed water quality exceedances. The proposed project has the potential to improve groundwater quality by facilitating the conveyance of surface water with better water quality than that of the existing groundwater in some areas of high vulnerability (King et. al, 2012).

Project Impact on Future Groundwater Supplies and Recharge

Based on review of the project Agreement, the project would have a positive impact on future groundwater supplies and recharge. The project would support increases recharge in the District, thus adding additional groundwater to storage, improving water levels, and benefiting the District's water budget.

The project Agreement does state that up to 25% of stored water "account" credit can be transferred to lands adjacent to the District only if the amount is in excess of the Landowner's current annual crop water requirements within District, thus, any transfers facilitated by implementation of the proposed project would not significantly impact the

District's water budget or groundwater supplies. Any credit transfer is subject to the conditions of federal, state, or local laws, rules, or regulations, including any SGMA GSPs.

Project Impact on Implementation of the Groundwater Sustainability Plan

Based on review of the Agreement and the District's GSP, the project would have a positive impact on implementation of the District's GSP, and could have a positive impact on implementation of nearby entities GSPs, because groundwater recharge projects in a regional aquifer system have the potential for regional impact whether small, large, or cumulative.

A percentage of all banked water under this Agreement will be credited to the District, thus, it would benefit the planned water budget in the GSP by facilitating the storage of more water for conjunctive use. Any direct recharge to groundwater would contribute to improved groundwater levels in the District, to combat the potential for undesirable results in water levels.

The project supports improved or newly constructed landowner-financed recharge and conveyance facilities. These new facilities, although privately owned, would increase absorptive capacity in the District and would provide operational flexibility with respect to future surplus surface water availability.

Specifically, the subject project supports fulfillment of Project 2 and Management Action #1 of the GSP to have Voluntary Land Use Conversion to reduce demand in dry years and increase recharge and banking capacity in the District.

Conclusions

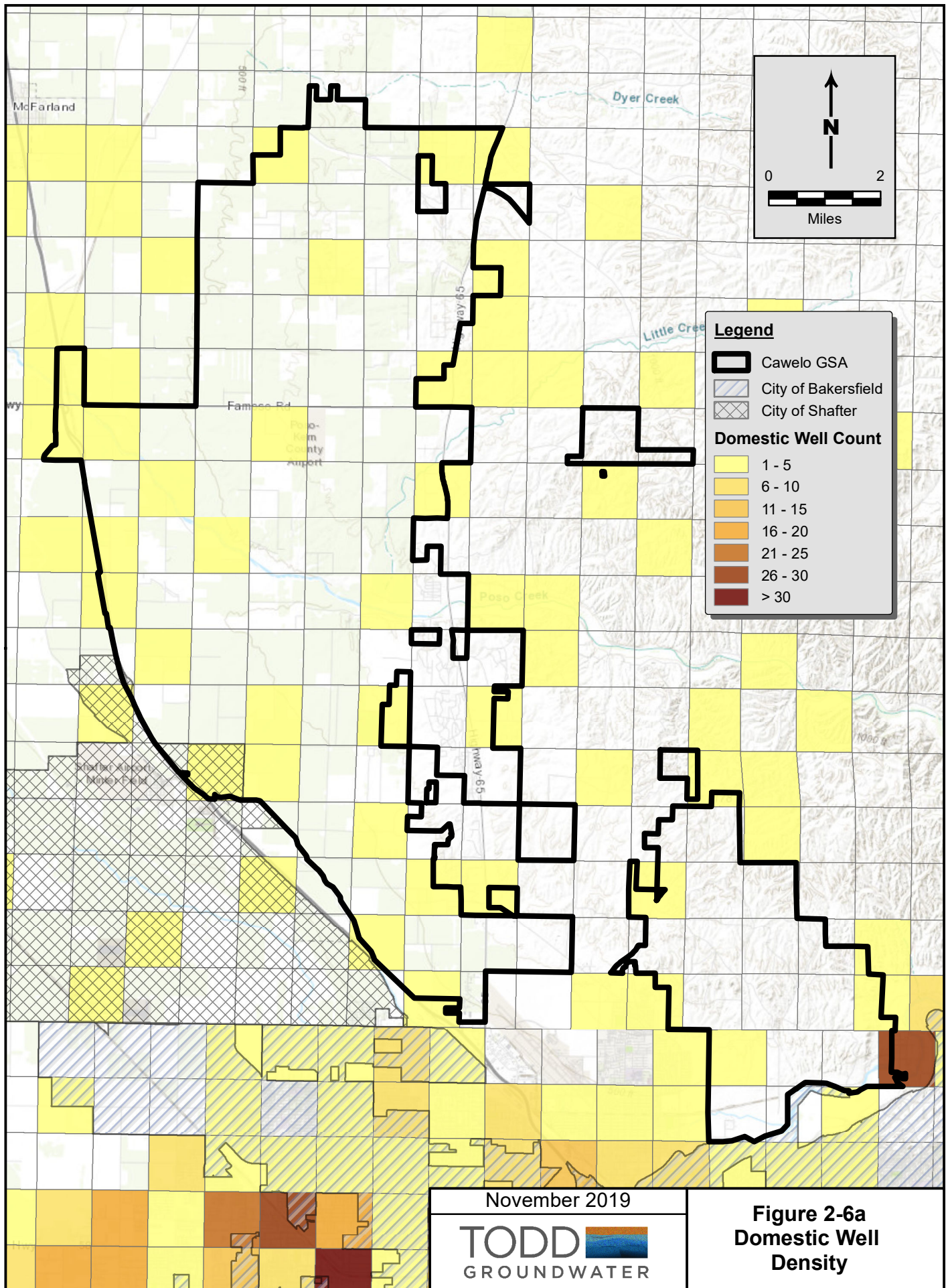
In summary, the Agreement provides sufficient details to evaluate potential hydrologic impacts of the project on the study area. Based on this evaluation, the project would not adversely impact the groundwater storage, recharge activities, groundwater quality, or implementation of the Basin Water Quality Control Plan or Cawelo's GSP. This project would be integral to increasing groundwater sustainability in the District by supporting reduced demand in dry years due to increased capacity for recharge and banking capacity in the District.

As stated in the Agreement, the participants of the project will be required to protect surrounding lands from adverse impacts related to banking facilities and operations.

References

- California Department of Water Resources (DWR). 2016. Bulletin 118 -Interim Update. Available: <https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118> Accessed: May 12, 2020.
- Central Valley Regional Water Quality Control Board (CVRWQCB). 2018. Water Quality Control Plan for the Tulare Lake Basin. May 2018. Available: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/ Accessed: May 12, 2020.
- Cawelo Water District. 2020. Cawelo Water District Landowner Banking and Recharge Agreement. March.
- Cawelo Water District Coalition (CWDC), 2015, Groundwater Quality Assessment Report (GAR), May 4. Available: https://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/water_quality/coalitions_submittals/cawelo/. Accessed: August 4, 2020.
- Kennedy Jenks Consultants (K/J), 2011, Cawelo Water District Famoso Basins Antidegradation Analysis, Submitted to California Regional Water Quality Control Board for Cawelo Water District, Chevron North America and Valley Waste Disposal Company, June 30 and October 2011 Addendum.
- King, A., Jensen, V., Fogg, G.E. & Harter, T. (2012) Groundwater Remediation and Management for Nitrate. Technical Report 5 in: 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.. Available: <http://groundwaternitrate.ucdavis.edu/files/139112.pdf> Accessed: August 1, 2020.
- Todd Groundwater. 2019. Cawelo GSA Groundwater Sustainability Plan Final. January. Available: <https://sgma.water.ca.gov/portal/service/gspdocument/download/1419> Accessed: August 1, 2020.

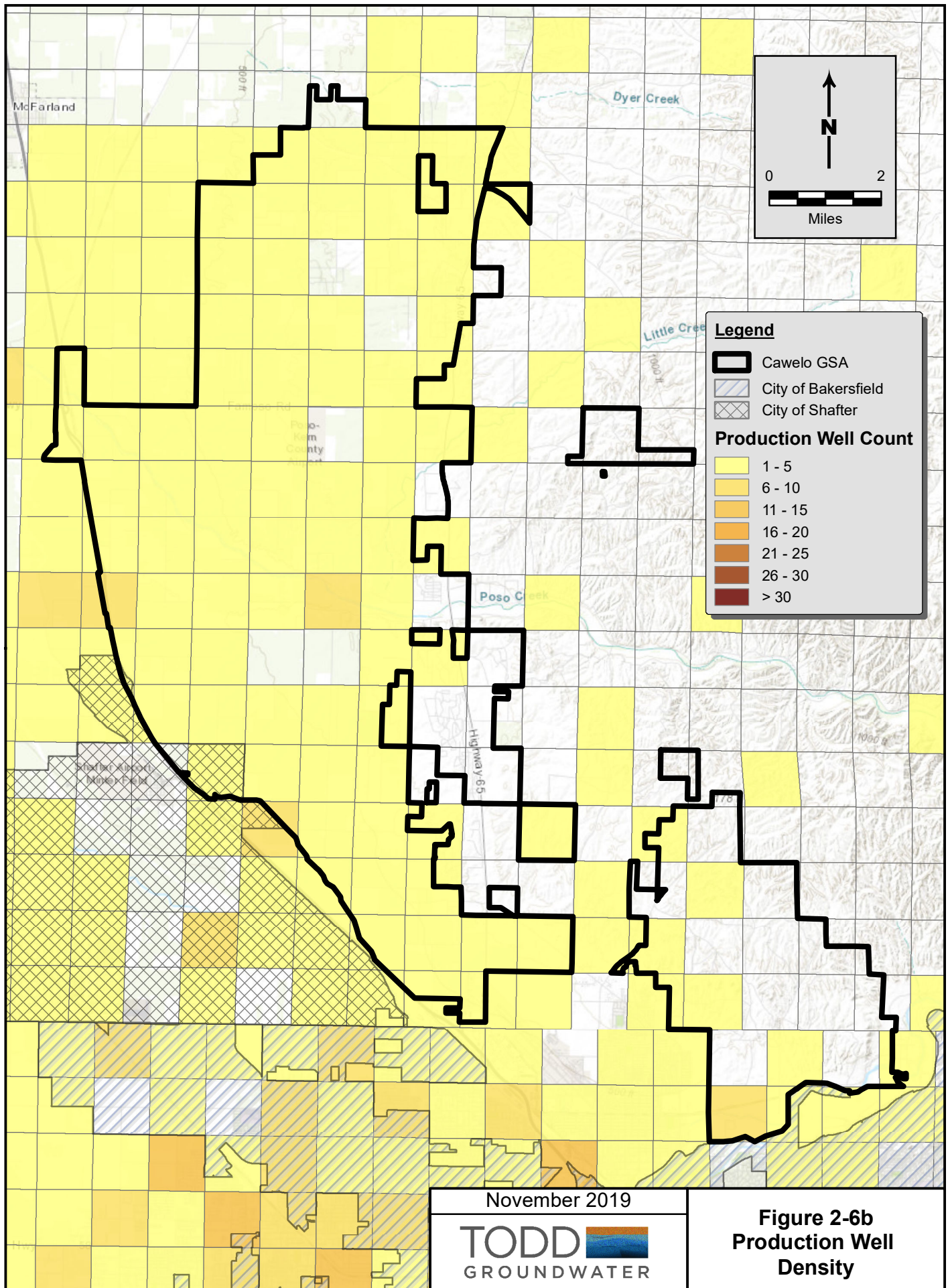
Attachment 1

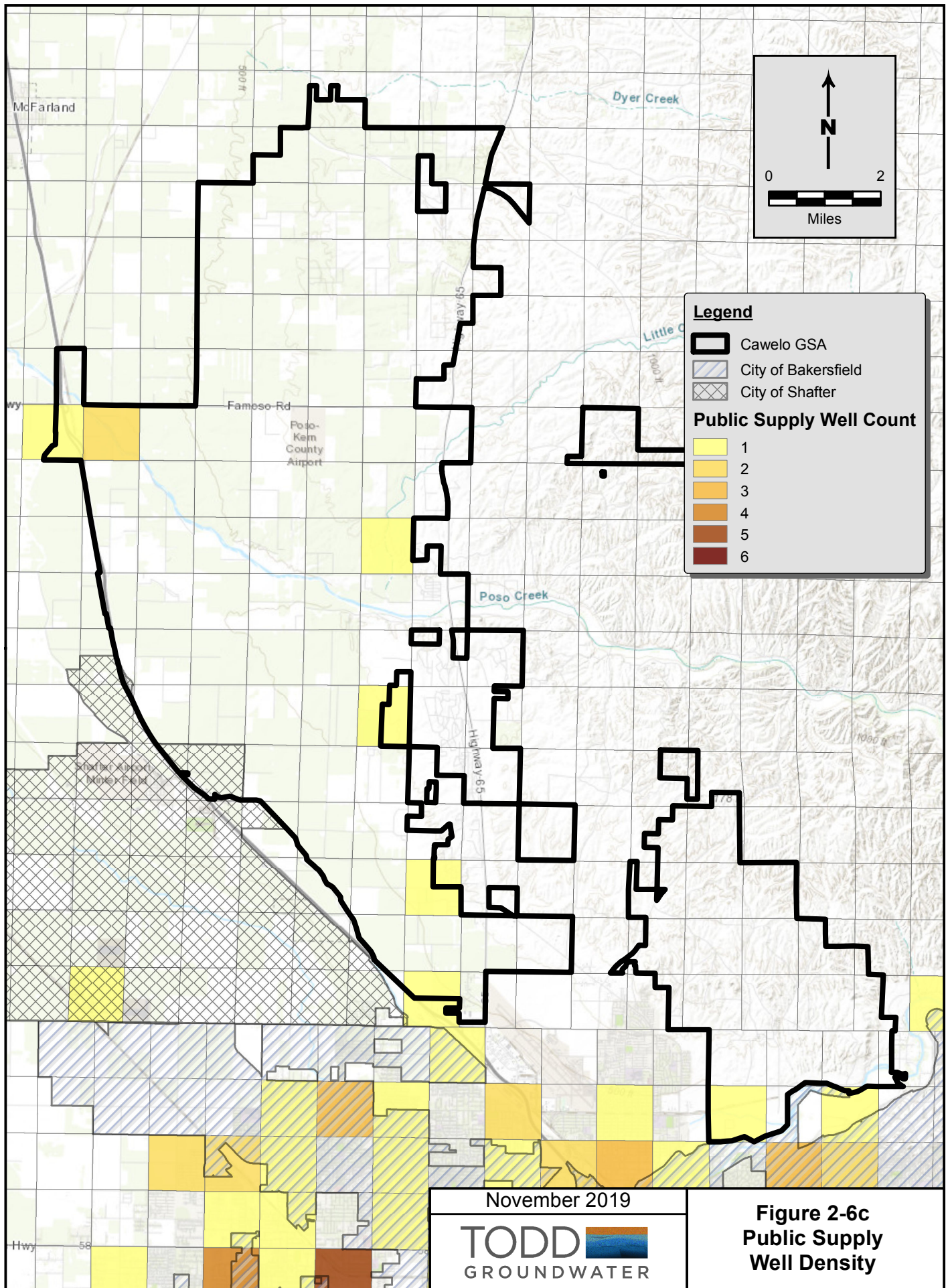


November 2019

TODD 
GROUNDWATER

Figure 2-6a
Domestic Well
Density



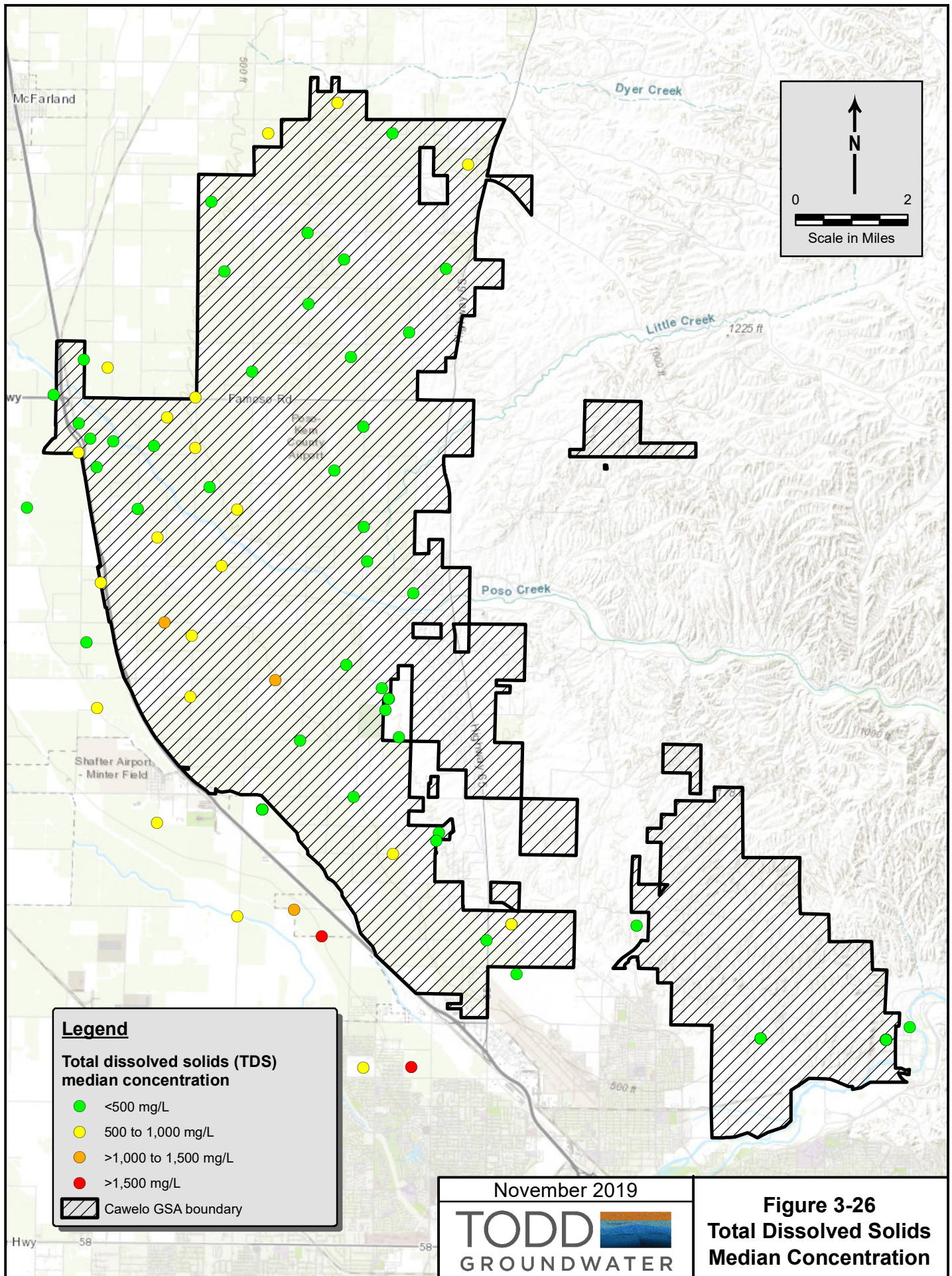


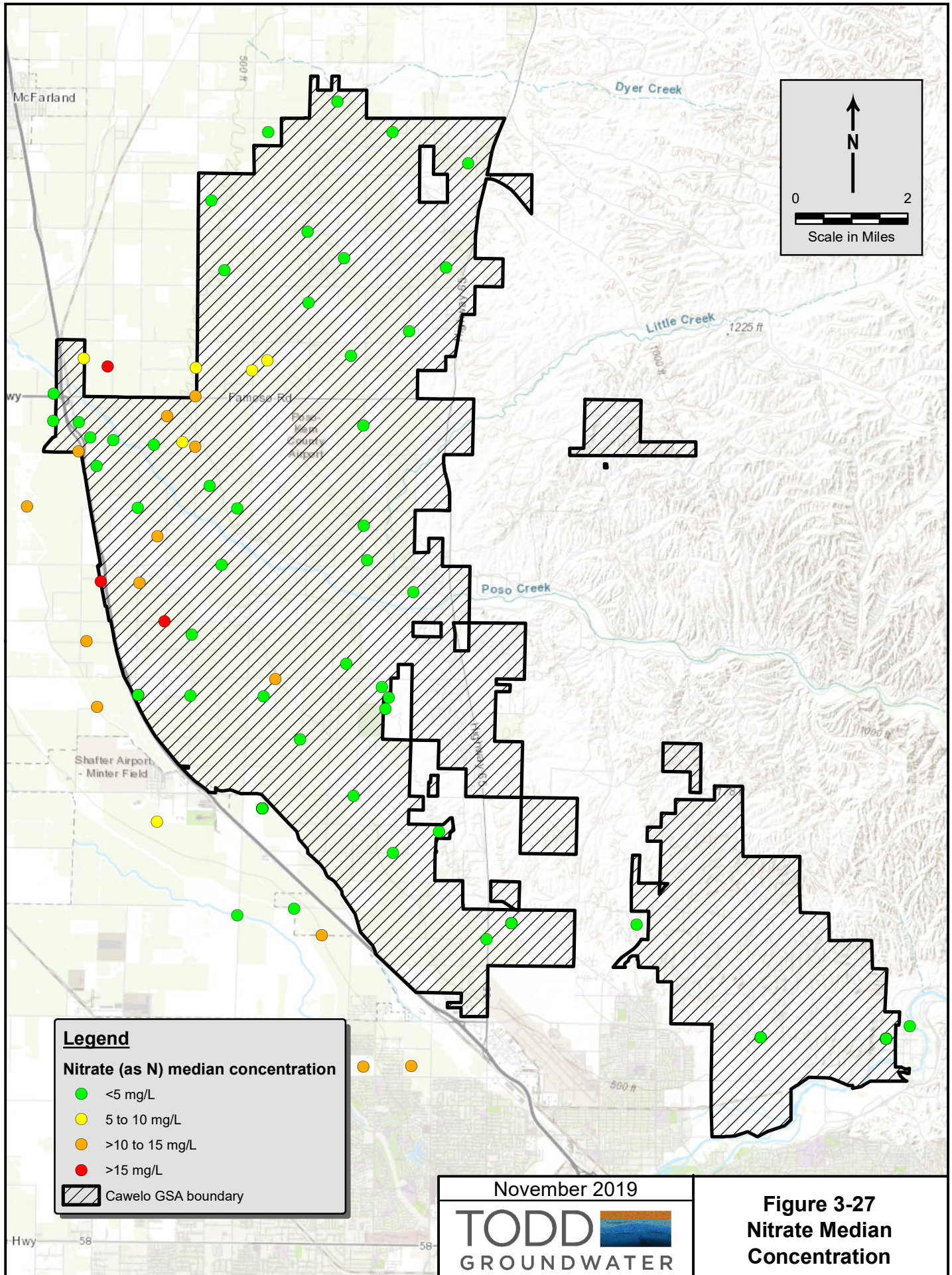
November 2019

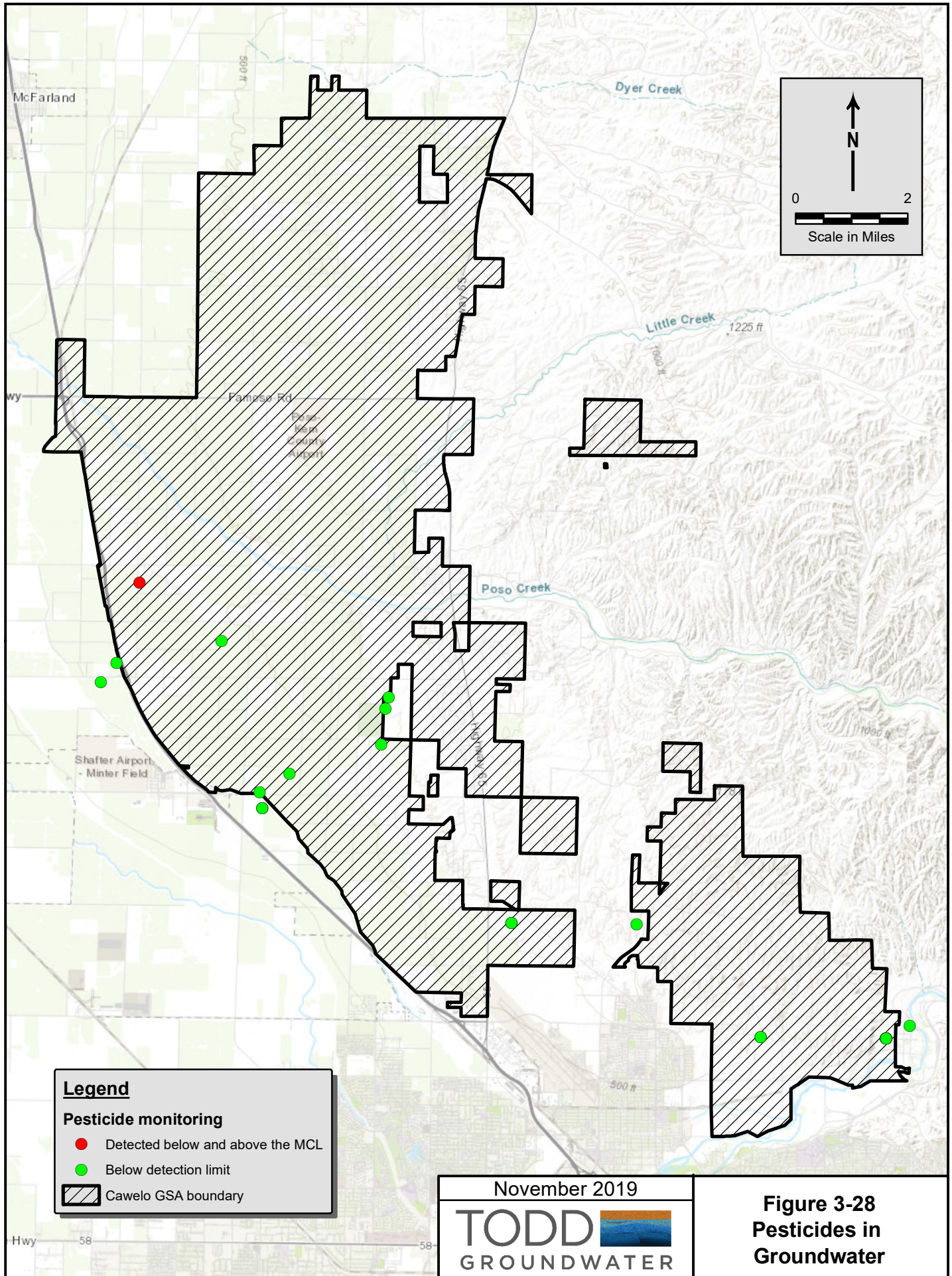
TODD 
GROUNDWATER

Figure 2-6c
Public Supply
Well Density

Attachment 2







Legend

Pesticide monitoring

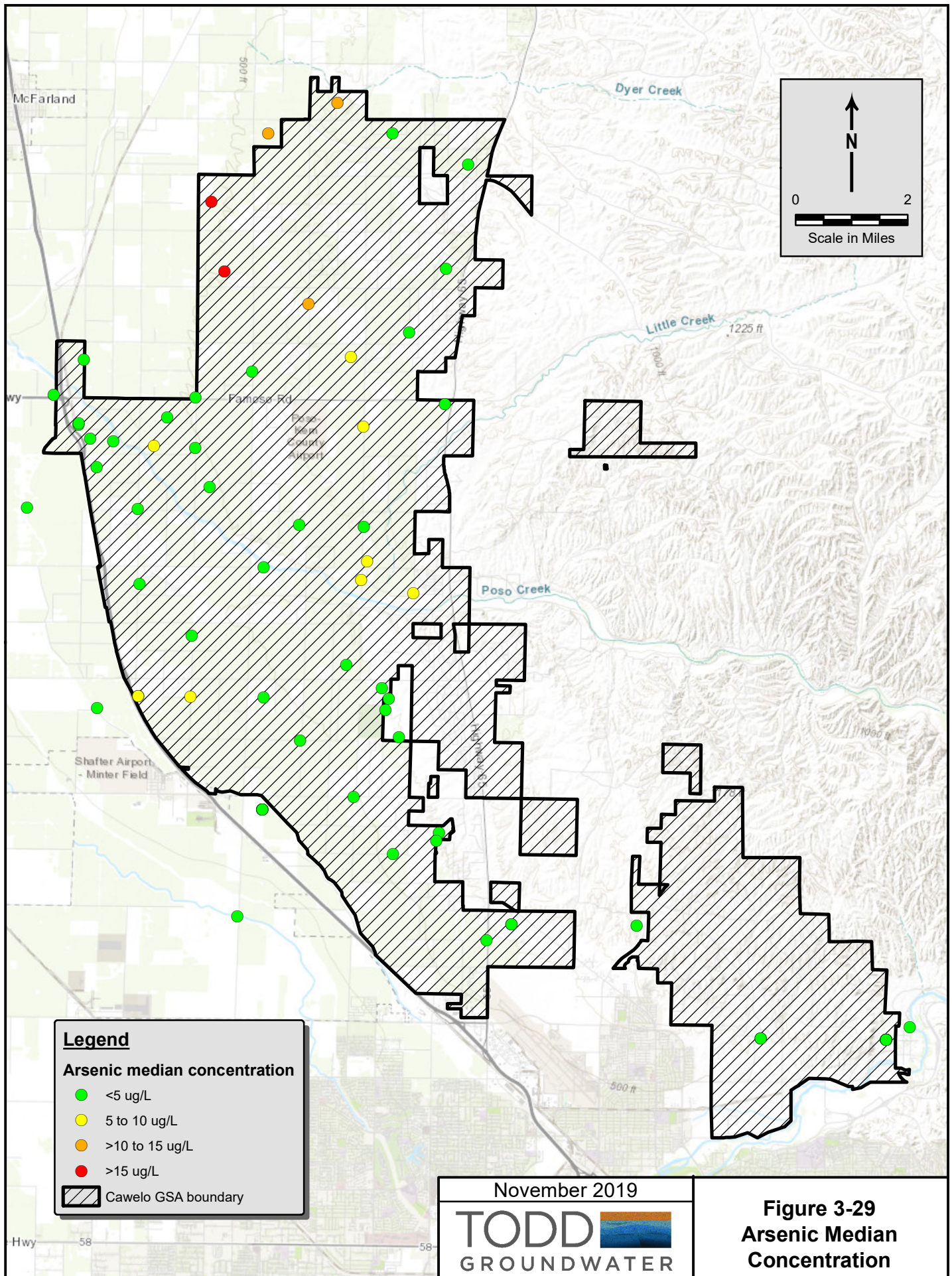
- Detected below and above the MCL
- Below detection limit
- Cawelo GSA boundary

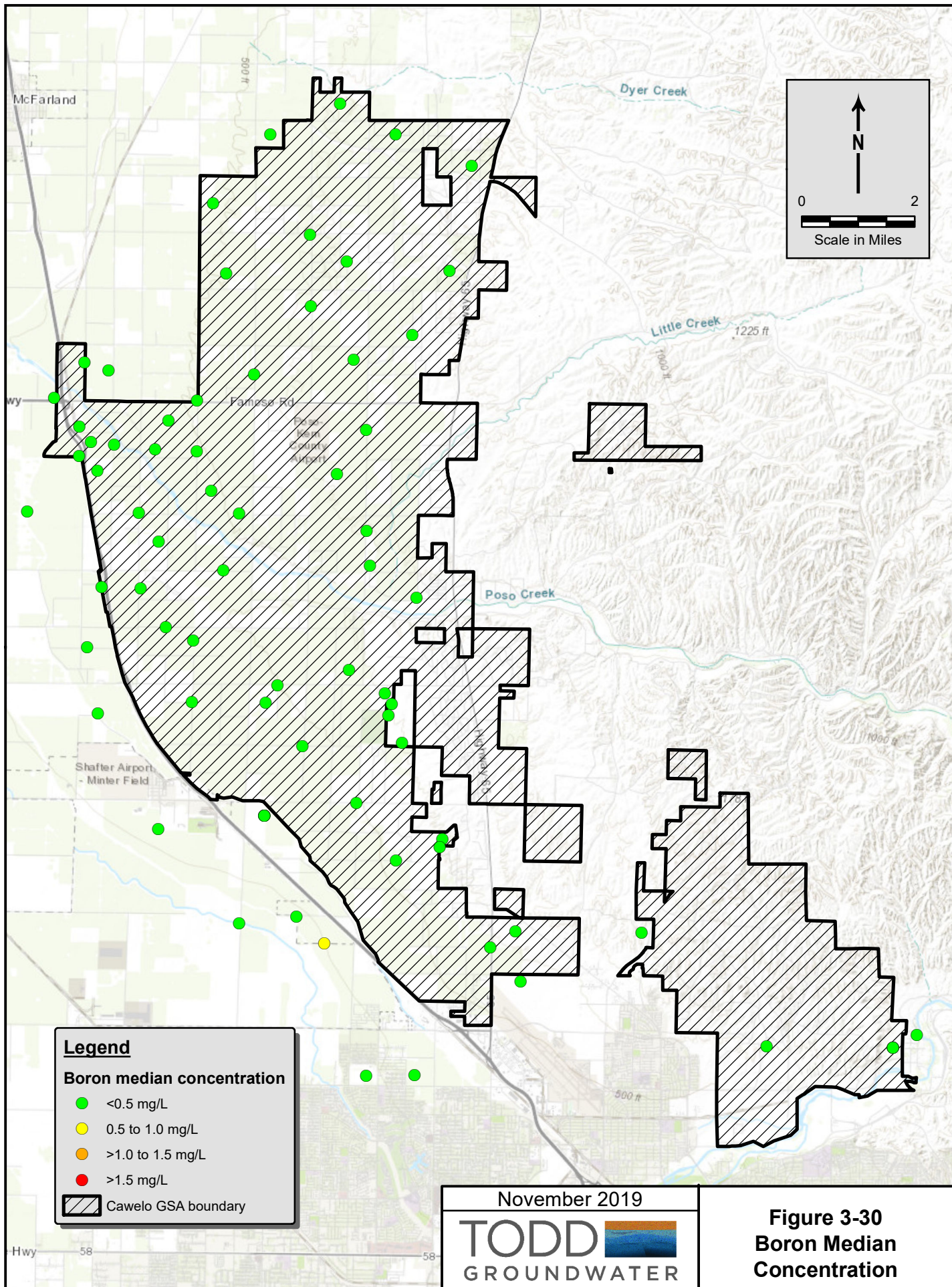
November 2019

TODD

GROUNDWATER

Figure 3-28
Pesticides in
Groundwater



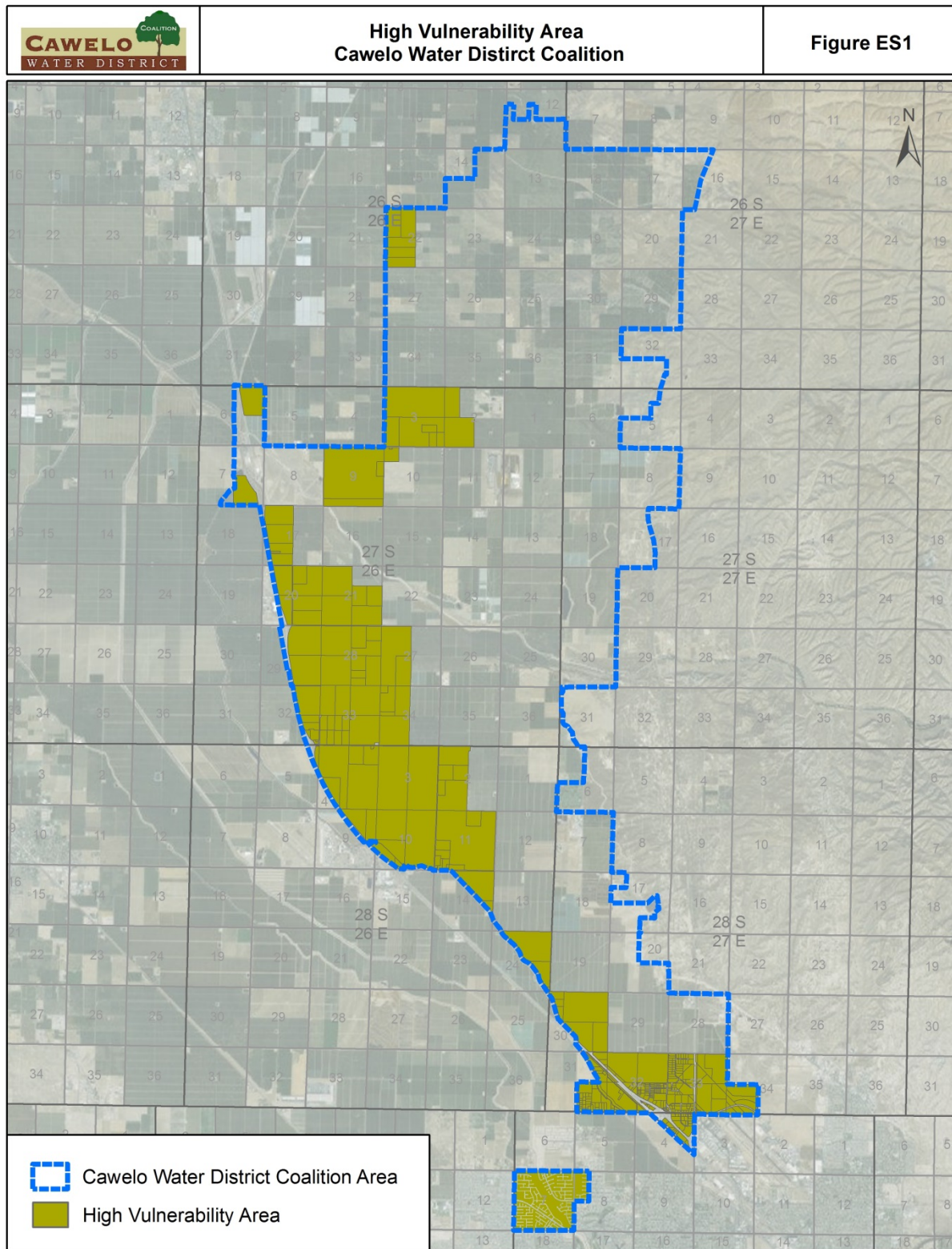


Attachment 3

Groundwater Quality Assessment Report

Cawelo Water District Coalition

Figure ES1 – High Vulnerability Area



Appendix B – Tribal Consultation



17207 Industrial Farm Road
Bakersfield, CA 93308
Phone: (661) 393-6072
Fax: (661) 393-6073

David R. Ansolabehere, General Manager

August 7, 2020

Robert Robinson, Co-Chairperson
Kern Valley Indian Council
PO Box 401
Weldon, CA 93283

RE: Landowner Groundwater Recharge and Banking Project, Kern County, California

Dear Mr. Robinson,

Cawelo Water District (Cawelo or District) proposes the development of a local Landowner Groundwater Recharge and Banking Project (Project) within the District, in Kern County, CA. The Project would provide Landowners within the District with a direct groundwater banking opportunity. Additionally, the District may also bank District water in Landowner recharge facilities, where appropriate, within the project.

Under the proposed project and within its parameters, Landowners would be allowed to convey Landowner owned surface water, acquired outside of the District, through existing District conveyance facilities, for groundwater recharge and later use. Where banking capacity is available, the District may also convey District surface water through the existing District conveyance system, for recharge in Landowner-owned recharge facilities.

No new developments are being proposed by the District at this time. Landowners would be responsible for construction, operation, maintenance, and repair of their recharge facilities.

Pursuant to California's Assembly Bill (AB) 52, Cawelo is seeking input on the Project from Native American Tribes and Tribal organizations that may have an interest or knowledge of traditional cultural places or archeological sites with significant Tribal association within the Project area.

If your Tribe would like to be a consulting party on this Project, please let us know of your interest, in writing, within 30 days. If a Tribe believes the Project may have an adverse effect on a traditional cultural place or archeological site, we would like to discuss possible ways to avoid, minimize, or mitigate potential adverse effects.

Sincerely,

David R. Ansolabehere, General Manager
Cawelo Water District
dansolabehere@cawelowd.org

Figure 1. Project Location Map

