FINAL INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

FOR THE

LATHROP AQUIFER STORAGE RECOVERY PROJECT

SEPTEMBER 2023

Prepared for:

City of Lathrop
Department of Public Works
390 Towne Centre Dr.
Lathrop, CA 95330

Prepared by:

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De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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INITIAL STUDY CHECKLIST

PROJECT TITLE

Lathrop Aquifer Storage and Recovery Project

LEAD AGENCY NAME AND ADDRESS

City of Lathrop
Department of Public Works
390 Towne Centre Dr.
Lathrop, CA 95330

CONTACT PERSON AND PHONE NUMBER

Gregory Gibson, Senior Civil Engineer
209-941-7442
ggibson@ci.lathrop.ca.us

PROJECT SPONSOR'S NAME AND ADDRESS

City of Lathrop
Department of Public Works
390 Towne Centre Dr.
Lathrop, CA 95330

PURPOSE OF THE INITIAL STUDY

An Initial Study (IS) is a preliminary analysis which is prepared to determine the relative environmental impacts associated with a proposed project. It is designed as a measuring mechanism to determine if a project will have a significant adverse effect on the environment, thereby triggering the need to prepare a full Environmental Impact Report (EIR). It also functions as an evidentiary document containing information which supports conclusions that the project will not have a significant environmental impact or that the impacts can be mitigated to a "Less Than Significant" or "No Impact" level. If there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, the lead agency shall prepare a Negative Declaration (ND). If the IS identifies potentially significant effects, but: (1) revisions in the project plans or proposals would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment, then a Mitigated Negative Declaration (MND) shall be prepared.

This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the proposed Aquifer Storage and Recovery (ASR) Project (project) may have a significant effect upon the environment. Based upon the findings and mitigation measures contained within this report, a Mitigated Negative Declaration (MND) will be prepared.

UPDATE TO THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Minor revisions have been made to the draft Mitigated Negative Declaration (MND). Specifically, typographical errors were corrected and clarifications were made to the final environmental document. Added language appears in a strikeout and underlined format. CEQA Guidelines Section 15073.S(a) requires a lead agency to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has previously been given. Pursuant to CEQA Guidelines Section 15073.S(b), a "substantial revision" includes two situations: (i) a new, avoidable significant effect is identified, and to reduce that effect to a level of insignificance, mitigation measures or project revisions must be added; or (ii) the lead agency determines that the mitigation measures or project revisions originally included in the negative declaration will not reduce potentially significant impacts to a level of insignificance, and new mitigation measures or project revisions are required. CEQA is clear that recirculation is not required if "new information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration." (CEQA Guidelines, §15073.S(c)(4).) None of the revisions made meet the recirculation requirements. As such, recirculation is not required.

WATER SUPPLY CONSIDERATIONS

The San Joaquin River historically divided the city into two separate groundwater basins. To the east of the river was the Eastern San Joaquin Groundwater Subbasin[1] and to the west is the Tracy Subbasin.[2] Both subbasins are part of the San Joaquin Valley Groundwater Basin. The City submitted a Basin Boundary Modification Request (BBMR) in June 2018, which was approved in February 2019 to include the entire City within the Tracy Subbasin.

The City has five operational production wells with a combined capacity of 8.4 million gallons per day (mgd), obtaining water from a relatively shallow aquifer at depths of 270 to 282 feet below land surface (BLS), above the Corcoran Clay. These wells are subject to contamination plumes from the Occidental Chemical Corporation (OCC), and by PFAS, resulting in a reduction in production rates and limited use to help meet peak demands. Well 9 has been placed in standby mode since summer of 2019 due to PFAS concentrations exceeding the State response level.

The City purchases Stanislaus River water from South San Joaquin Irrigation District (SSJID) through the South County Water Supply Project (SCWSP). The SCWSP is a partnership between Lathrop, Manteca, Tracy, Escalon, and SSJID. The water is treated at the Nick C. DeGroot Water Treatment Plant (DGWTP) located near the Woodward Reservoir in San Joaquin County, then distributed to the jurisdictions via pipelines.

[1] California Department of Water Resources, 2006. California's Groundwater Bulletin 118, San Joaquin Valley Groundwater Basin Eastern San Joaquin Subbasin, Groundwater Basin Number: 5-22.01. January. Available: San Joaquin Valley Groundwater Basin Eastern San Joaquin Subbasin (ca.gov). Accessed: June 19, 2023.

[2] California Department of Water Resources, 2006. California's Groundwater Bulletin 118, San Joaquin Valley Groundwater Basin Tracy Subbasin, Groundwater Basin Number: 5-22.15. January. Available: San Joaquin Valley Groundwater Basin Tracy Subbasin (ca.gov). Accessed: June 19, 2023.

PROJECT LOCATION AND SETTING

The proposed Aquifer Storage and Recovery (ASR) project is located in the City of Lathrop at the River Islands potable water storage and sewer pumping project, located at 950 Stewart Road (see **Figure 1** and **Figure 2**), near Water Tank 5 and the L2 South San Joaquin Irrigation District (SSJID) turnout. The project site is immediately surrounded by industrial and agricultural uses and is within the River Islands Master Plan area. The potable water storage and sewer pumping project site is located adjacent to an "Employment Center" as designated by the River Islands Master Plan.

Currently the project site has an existing 1.5-million-gallon (MG) water tank, and as of July 2023, two additional tanks are currently under construction. The proposed ASR well and two monitoring wells would be located on the River Islands site. There are two alternative placement configurations for the proposed project; the first is locating the ASR building within the tank site parcel (**Figure 3**), while the second is locating the ASR building on an adjacent parcel east of the tank site parcel (**Figure 4**). One of the monitoring wells has recently been completed near the southern boundary of this site.

GENERAL PLAN AND ZONING DESIGNATIONS

The project site is currently designated Regional Commercial – River Islands (RC-RI) by the City of Lathrop General Plan Land Use Designations Map and is zoned Regional Commercial – River Islands (CR-RI).

PROJECT DESCRIPTION

The proposed project would implement Aquifer Storage and Recovery (ASR) technology to optimize the conjunctive use of the City's existing supplies of treated surface water in addition to available groundwater, to enhance delivered water quality to customers and increase the reliability of the City's water supply and delivery system.

The proposed project would involve the injection of treated (potable) drinking water from the City's South San Joaquin Irrigation District (SSJID) South County Water Supply Project (SCWSP) into selected confined aquifer zones for storage and subsequent extraction (i.e., "recovery").

The ASR Project would help mitigate drought impacts on the City's surface water supplies by providing long-term storage of up to 1,450 acre-feet per year (AFY) in the lower confined aquifer that is not impacted by the City's groundwater contamination. In general, the injection period would occur from November through April, when water demand is lowest.

The City would utilize a new well within the project site for both the injection of the treated surface water or drinking water supplied from the City's distribution system into the aquifer, and the subsequent extraction of this water. The project would not require an increase in the City's existing surface water usage or increase the demand for water supplies. Initial well development would start with formation of a buffer zone around the well. The buffer zone initially separates the native groundwater and the stored water, providing water quality and geochemical benefits. The buffer zone volume is never recovered; however, the subsequent water stored is typically

fully recovered during times when it is needed to meet peak or emergency demands or during severe droughts. The sum of the buffer zone volume and the volume required for recovery is known as the target storage volume (TSV). A typical "rule-of-thumb" for the buffer zone volume is at least 70 days of recovery at the design production capacity of the well during ASR recovery, i.e., a 2 million gallon per day (mgd) well would likely have a buffer zone volume of at least 140 million gallons (MG). The recovery volume remains to be determined, but would be at least the volume required to help meet projected peak summer demands for typically 60 to 120 days and more likely a larger volume intended to provide water supply reliability during an extended drought. For example, to provide water supply reliability during a one-year drought, the volume of water to be stored for a 2-mgd well would be 730 MG, plus the buffer zone volume of at least 140 MG, or at least 870 MG (2,670 acre-feet [AF]).

The ASR well would be drilled to a depth of 1,200 – 1,500 feet BLS. The ASR well's buffer zone is estimated at 1,000 GPM (or approximately 1.44 mgd, or 101 MG [309 AF]). A target storage volume of 7 months recovery was selected for this well assuming there is a 4-month peak demand on the existing potable water supply plus a 70-day buffer zone. Adding in the initial buffer zone contribution the total storage volume for this well is estimated to be at least 408 MG. The radius of this storage zone is not yet determined as it would relate to how deep and thick is the proposed storage interval. Associated pumps and piping would be constructed to provide water injection and recovery. Two monitoring wells would be installed, one within 30 feet of the ASR well and the other approximately 220 feet of the well. The first well has already been installed as part of preliminary feasibility analyses.

The ASR well may be housed in a masonry building to protect the well, pipes, and electronic components. If constructed, the masonry building would be a single-story structure and would include safety lighting on the outside. It is also possible that the well and piping could remain outdoors, in an unprotected environment, or under a shade canopy. Construction of the ASR well, including startup, monitoring, and cycle testing would take place over approximately 24 months beginning in early 2024.

Water stored in the aquifer under the ASR program would be used for two primary purposes: 1) to meet peak hour summer water demands, and 2) for drought water supply. Peak hour demands occur daily during the summer months. The ASR water would supplement the water stored by the City in above-ground storage tanks, and water pumped from the wells assists the City in keeping water pressure within the distribution system within the desired pressure range.

By delivering stored, high quality surface water from SSJID, municipal water customers in Lathrop would receive the best quality water at their taps. Water not withdrawn from the aquifer for peak hour demand would remain in the groundwater basin for future use without degradation of quality. The intention of the ASR program is for the City to inject approximately 1,450 AFY and build up its banked groundwater supply over multiple years.

PROJECT BACKGROUND

In order to determine the feasibility of a long-term ASR project, the City undertook a feasibility analysis at the project site to determine whether an ASR well would result in the desired level of

storage. An 8.75-inch diameter borehole to a depth of 800 feet below ground surface (bgs) by the direct rotary drilling method. The test hole was geophysically logged to the completed depth. The test hole was widened to 12.25-inch diameter to a depth of 270 feet bgs, 10.625-inch diameter from 270 to 540 feet bgs, and 8.75-inch diameter from 540 to 800 feet bgs and install three piezometers that would allow for the collection of zone-specific water quality samples and water levels. Water quality, minerology, geochemical, and geologic measurements were taken and logged.

The results, conclusions, and findings of the City's ASR Feasibility Assessment.[3] The Engineer's Report included in the feasibility analysis demonstrates that the proposed ASR project is technically feasible, and demonstrates that the proposed project would not adversely impact groundwater quality or the City's water supply infrastructure.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

The City of Lathrop will be the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15050. The following agencies may be required to issue permits or approve certain aspects of the proposed project:

- San Joaquin County Environmental Health Department (well drilling permit)
- State Water Resources Control Board Division of Drinking Water (Drinking Water Source Assessment and Protection application; water supply permit amendment)

PROJECT GOALS AND OBJECTIVES

The City of Lathrop has identified the following goals and objectives for the proposed project:

1. Provide seasonal storage of drinking water during winter months, when system demand for drinking water is below peak levels and excess water supply and treatment capacity is available, and have sufficient water supplies available for future recovery from the same well when needed to meet peak summer demands.
2. Provide emergency storage for drinking water in the event of a natural disaster, transmission pipeline failure, or if the domestic water supply wells need to be taken partially or completely offline for a period of time.
3. Provide long-term drinking water storage (water banking) to provide water supply reliability and sustainability at low cost, allowing more water to be stored in wet years and other times of relatively low water demand with recovery anticipated in later years, and particularly during droughts.
4. Defer expansion of the City's water treatment facilities until such time as more water treatment, not just disinfection, is needed.

[3] City of Lathrop, 2023. Aquifer Storage Recovery Feasibility Assessment. Final. March.

Environmental Factors Potentially Affected:

The environmental factors checked 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.

	Aesthetics		Agriculture and Forestry Resources		Air Quality
	Biological Resources	X	Cultural Resources		Energy
	Geology and Soils		Greenhouse Gasses		Hazards and Hazardous Materials
	Hydrology and Water Quality		Land Use and Planning		Mineral Resources
	Noise		Population and Housing		Public Services
	Recreation		Transportation	X	Tribal Cultural Resources
	Utilities and Service Systems		Wildfire		Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	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, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "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

09/06/2023

Date

EVALUATION INSTRUCTIONS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
    a) The significance criteria or threshold, if any, used to evaluate each question; and
    b) The mitigation measure identified, if any, to reduce the impact to less than significance

EVALUATION OF ENVIRONMENTAL IMPACTS:

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-Than-Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level.
- Less-than-Significant Impact. A less-than-significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the project.

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current CEQA Guidelines Appendix G Environmental Checklist Form. Impact questions and responses are included in both tabular and narrative formats for each of the 21 environmental topic areas.

I. AESTHETICS

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect on a scenic vista?				x
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				x
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 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?			x	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			x	

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through b): No Impact. There are no designated scenic vistas on the project site. The site is not located near a scenic highway. As such, there would be no change to any visual resources within the city. There would be no impact.

Responses c) through d): Less than Significant. The proposed Project would not conflict with applicable zoning and other regulations governing scenic quality. The proposed masonry building would be a single-story structure that would not adversely affect day or nighttime views in the area, and would not degrade the existing visual character or quality of public views of the site and its surroundings. There is less-than-significant impact.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
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?				x
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				x
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				x
d) Result in the loss of forest land or conversion of forest land to non-forest use?				x
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?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through e): No Impact. The project would not result in any changes to existing land uses within the city, and the project does not have the potential to impact any agricultural or forest resources. The project would provide more reliable municipal water supplies within the City's service area and would not reduce water availability for existing agricultural operations. The water stored in the aquifer under the ASR program will be used for two primary purposes: 1) to meet peak hour summer water demands, and 2) for drought water supply. There is no impact.

III. AIR QUALITY

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Conflict with or obstruct implementation of the applicable air quality plan?			x	~~x~~
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?			x	~~x~~
c) Expose sensitive receptors to substantial pollutant concentrations?			x	~~x~~
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			x	~~x~~

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through d): ~~No Impact~~ Less-Than-Significant Impact. The project would ~~not~~ generate minimal air emissions during project construction activities. The site is already flat, and there would not be mass dirt moving. Drilling of the well would require construction equipment that would emit minimal emissions. There would not be any emissions generated during the operation of the project. ~~Two monitoring wells will be installed, one within 30 feet of the ASR well and the other approximately 220 feet of the well. The first well has already been installed as part of preliminary feasibility analyses.~~ Project operations would not generate odors. The proposed Project would not expose sensitive receptors to substantial pollutants as there will be no emissions generated during operation and emissions during construction would be minimal. ~~There is no impact.~~ The impact would be less than significant.

IV. BIOLOGICAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 Game or U.S. Fish and Wildlife Service?				x
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				x
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?				x
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?				x
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				x
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?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through f): No Impact. The project involves injecting surface water into the local aquifer for storage and future recovery. The surface water comes from the City's existing surface water allocations. The project would not increase the rate or volume of surface water use or diversion, and as such, would not impact any riparian habitat or surface water resources that provide habitat for biological resources.

The City of Lathrop is located within the jurisdiction of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan ("Plan" or "SJMSCP") and is located within the Central Transition Zone of the SJMSCP. The San Joaquin Council of Governments (SJCOG) prepared the Plan pursuant to a Memorandum of Understanding adopted by SJCOG, San Joaquin County, the United States Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), Caltrans, and the cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy in October 1994. On February 27, 2001, the Plan was unanimously adopted in its entirety by SJCOG.

According to Chapter 1 of the SJMSCP,[4] its key purpose is to "provide a strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses, while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA); providing and maintaining multiple use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and, accommodating a growing population while minimizing costs to project proponents and society at large."

In addition, the goals and principles of the SJMSCP include the following:

- Provide a County-wide strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses, while protecting the region's agricultural economy.
- Preserve landowner property rights.
- Provide for the long-term management of plant, fish, and wildlife species, especially those that are currently listed, or may be listed in the future, under the ESA or the CESA.
- Provide and maintain multiple-use open spaces, which contribute to the quality of life of the residents of San Joaquin County.
- Accommodate a growing population while minimizing costs to project proponents and society at large.

In addition to providing compensation for conversion of open space to non-open space uses, which affect plant and animal species covered by the SJMSCP, the SJMSCP also provides some compensation to offset impacts of open space conversions on non-wildlife related resources such as recreation, agriculture, scenic values and other beneficial open space uses. Specifically, the SJMSCP compensates for conversions of open space to urban development and the expansion of existing urban boundaries, among other activities, for public and private activities throughout the County and within Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy.

The project would not result in any open space conversions and would not impact any biological resources. Project implementation would not conflict with this plan. The Project would not have a substantial adverse effect on any species identified as a candidate, sensitive or special species in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. The proposed Project would not conflict with any local policies or ordinances protecting biological resources. The proposed Project would not interfere with the movement of any native resident or migratory fish or wildlife species. There is no impact.

[4] San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. November 14, 2000. Accessed July, 2023.

V. CULTURAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section15064.5?				x
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		x		
c) Disturb any human remains, including those interred outside of formal cemeteries?		x		

RESPONSES TO CHECKLIST QUESTIONS

Response a) No Impact. There is no potential for the project to impact any cultural or historical resources. The proposed Project will not cause a substantial adverse change in the significance of a historical resource. There is no impact.

Responses b) through c) Less Than Significant with Mitigation. Based on previous disturbance, and the environmental context, the proposed Project has low potential to impact archaeological resources. Despite the low potential, the discovery of archaeological materials during ground-disturbing activities cannot be entirely discounted. The inadvertent discovery of cultural materials during project implementation could be a potentially significant impact. This impact would be reduced to a less-than-significant level with implementation of **Mitigation Measure CUL-1 and Mitigation Measure CUL-2,** which require avoidance measures or the appropriate treatment of archaeological resources and human remains if discovered during project implementation.

Mitigation Measure CUL-1

> If pre-contact or historic-era cultural resources are encountered during project implementation, construction activities within 100 feet shall halt and a qualified archaeologist, defined as an archaeologist meeting the U.S. Secretary of the Interior's Professional Qualification Standards for Archeology, shall inspect the find within 24 hours of discovery and notify the City of Lathrop of their initial assessment. Pre-contact cultural materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse.
>
> If the City determines, based on recommendations from a qualified archaeologist and a Native American representative (if the resource is pre-contact), that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5) or a tribal cultural resource (as defined in PRC Section 21080.3), the resource shall

be avoided if feasible. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement.

If avoidance is not feasible, the City shall consult with appropriate Native American tribes (if the resource is pre-contact), and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2, and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).

Mitigation Measure CUL-2

In the event of discovery or recognition of any human remains during project implementation, construction activities within 100 feet of the find shall cease until the San Joaquin County Coroner has been contacted to determine that no investigation of the cause of death is required. The Coroner shall contact the Native American Heritage Commission within 24 hours, if the Coroner determines the remains to be Native American in origin. The Commission will then identify the person or persons it believes to be the most likely descendant from the deceased Native American (PRC Section 5097.98), who in turn would make recommendations to the City for the appropriate means of treating the human remains and any associated funerary objects (CEQA Guidelines Section 15064.5[d]).

VI. ENERGY

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			x	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			x	

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through b) <u>Less-than-Significant Impact.</u> Appendix G of the CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix G of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed Project would be considered "wasteful, inefficient, and unnecessary" if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The proposed Project would implement ASR technology to optimize the conjunctive use of the City's existing supplies of treated surface water in addition to available groundwater, to enhance delivered water quality to customers and increase the reliability of the City's water supply and delivery system.

The implementation of the proposed Project is estimated to utilize approximately 390,745 kilowatt-hours per year (kwh/year). This was calculated based on the amount of water used for long-term storage for the project (1,450 acre-feet per year), as provided by the City of Lathrop, as well as the electricity intensity factor for water supply in the San Joaquin River Hydrologic Region of 827 kwh per million gallons of water.[5,6]

Other potential sources of energy consumption are not considered herein, as the existing Project site is already established, and the Project is simply the implementation of a new technology on an already existing site. Therefore, other potential sources of energy consumption (such as worker trips associated with the Project) are considered to already be part of the existing conditions. The new technology (ASR) is anticipated to require the amount of electricity

[5] See the CalEEMod (v.2022.1) User's Guide, Appendix G, Table G-32, for detail on the electricity intensity factor.
[6] Based on a conversion factor of 1 acre-foot of water being equal to approximately 325,851.4 gallons.

consumption as described above. The proposed Project does not anticipate installation of solar photovoltaic (PV) systems or other sources of renewable energy on-site.

Conclusion

The proposed Project would use energy resources for the implementation of the ASR technology within the Project site. The proposed Project would be responsible for conserving energy, to the extent feasible, and relies heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures.

The proposed Project would be in compliance with all applicable federal, state, and local regulations regulating energy usage. As a result, the proposed Project would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for each stage of the proposed Project including construction, operations, maintenance, and/or removal. The proposed Project would comply with all existing energy standards, including those established by the City of Lathrop, and would not result in significant adverse impacts on energy resources. Therefore, the proposed Project would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the threshold as described by Appendix G of the CEQA Guidelines. This is a less-than-significant impact.

VII. GEOLOGY AND SOILS

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation***	***Less Than Significant Impact***	***No Impact***
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				x
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 Division of Mines and Geology Special Publication 42.				x
ii) Strong seismic ground shaking?				x
iii) Seismic-related ground failure, including liquefaction?				x
iv) Landslides?				x
b) Result in substantial soil erosion or the loss of topsoil?			x	
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?			x	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			x	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				x
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) No Impact. The closest earthquake fault to the Project site is the Vernalis Fault, located approximately 5 miles southwest of the Project site.[7] The proposed Project will not directly or indirectly cause potential substantial adverse effects including strong seismic ground shaking, or seismic-related ground failure such as liquefaction. Therefore, there is no impact.

[7] USGS Quaternary Fault and Fold Database of the United States. Available: https://www.usgs.gov/programs/earthquake-hazards/faults Accessed: July 10, 2023.

Responses b) through d): Less than Significant. The Corcoran Clay is a major regional confining bed beneath the western part of the San Joaquin Valley. This clay separates the overlying upper aquifer from an underlying confined lower aquifer. The top of the Corcoran Clay is at an average depth of 280 feet beneath the Project site. The electric log and lithologic samples collected during drilling indicate the Corcoran Clay extends from 280 to 420 feet in depth at this location. Groundwater below the Corcoran Clay is indicated to be of high salinity. There are two other shallow clay layers in the upper aquifer. The shallowest is termed the A-clay. The soil cutting and electronic log for this well indicates the equivalent of the A-Clay likely extends from 90 to 100 feet in depth. Another regional clay is the C-Clay, which is present between the A-Clay and the Corcoran Clay. The electric log for this well indicates the equivalent C-Clay extends from 220 to 230 feet in depth at this location. [8] Due to previous site disturbance, there is less than significant impact to soil erosion and loss of topsoil. The Project site is not located on a geologic unit or soil that is unstable, or that would become unstable because of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Therefore, there is a less than significant impact.

Responses e) through f): No Impact. The proposed Project would involve the injection of treated drinking water into selected confined aquifer zones for storage and subsequent extraction. The proposed Project will not affect the use of septic tanks or wastewater resources. The proposed Project will not destroy a unique paleontological resource, site or unique geological feature. Therefore, there is no impact.

[8] City of Lathrop, Stewart Monitoring Well Construction Summary and Aquifer Storage and Recovery Well Design Recommendations. March 2023

VIII. GREENHOUSE GAS EMISSIONS

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			x	~~x~~
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?			x	~~x~~

RESPONSES TO CHECKLIST QUESTIONS

Responses a) and b): ~~**No Impact**~~ **Less-than-Significant Impact**. During construction of the ASR well, some construction equipment would be used to drill the well, construct the masonry building, and install piping. GHG emissions from construction equipment would be minimal. The project operation would not generate any greenhouse gas emissions. Project implementation would not conflict with any statewide, regional, or local GHG reduction plans or regulations. ~~There is no impact.~~ The impact would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				x
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?				x
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				x
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?				x
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?				x
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				x
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through d): No Impact. The proposed project would not involve the use of any hazardous materials. There would be no hazardous materials used, stored or transported to the injection well site as a result of project implementation. The injection well site is not located on a list of hazardous sites. STEAM Academy is located 1 mile north of the well site. However, this school site would not be exposed to any project related hazards, as there are no hazardous materials or activities associated with the project. There is no impact.

Response e): No Impact. The Federal Aviation Administration (FAA) establishes distances of ground clearance for take-off and landing safety based on such items as the type of aircraft using the airport. The San Joaquin County Airport Land Use Commission (ALUC) is an advisory body that assists local agencies with ensuring the compatibility of land uses in the vicinity of airports. The County ALUC reviews proposed development projects for consistency with airport land use

compatibility. The General Plan presents a policy that is designed to ensure that new development is consistent with setbacks, height and land use restrictions as determined by the Federal Aviation Administration and the San Joaquin County Airport Land Use Commission.

The Stockton Metropolitan Airport is the closest airport to the project site, located approximately 12.5 miles north of the site. The San Joaquin County's Aviation System Stockton Metropolitan Airport Land Use Compatibility Plan[9] shows that the project site is not located within a flight zone and the proposed project is not considered an incompatible land use. Implementation of the proposed project would have no impact with regards to this environmental issue.

Response f): No Impact. The proposed Project does not include any actions that would impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Furthermore, the proposed project would not result in population growth that would increase the demand for emergency services during disasters. Implementation of the proposed Project would result in no impact on this environmental topic.

Response g): No Impact. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

According to the State Responsibility Area Fire Hazard Severity Zone Map[10] the Project site is not located in a SRA High Fire Risk zone. The proposed Project does not include any structures that would be at risk from fires, and does not include any activities that would potentially result in wildland fires. There is no impact.

[9] County of San Joaquin Aviation System Stockton Metropolitan Airport Land Use Compatibility Plan. February 2018. Accessed July 2023.
[10] CAL FIRE Fire Hazard Severity Zone Map https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildfire-preparedness/fire-hazard-severity-zones/fire-hazard-severity-zones-map/ Accessed July 2023

X. HYDROLOGY AND WATER QUALITY

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			x	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			x	
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:				x
(i) Result in substantial erosion or siltation on- or off-site;				x
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;				x
(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				x
(iv) Impede or redirect flood flows?				x
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				x
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) and b): Less than Significant. The potential for the proposed project to result in groundwater quality impacts was addressed in the 2023 City of Lathrop Aquifer Storage and Recovery Feasibility Assessment. Although the primary goal of most ASR programs is to maximize water supply reliability by storing seasonally available water in the aquifer until needed, an equally important goal is the preservation or enhancement of water quality through the ASR process. The capture, treatment, conveyance, and later recovery of this water (in addition to the cost of water purchase and/or water rights) results in the recharge water being valuable.

The City of Lathrop is evaluating the potential to use an ASR groundwater banking program to enhance the management of surplus water using seasonal storage, emergency storage, and/or long-term storage methods to support continued drought resiliency and overall water supply reliability. The focus of the ASR program includes the following:

- **Seasonal storage.** During winter months, when system demand for drinking water is below peak levels and excess water supply and treatment capacity is available, drinking water will be stored underground through an ASR well located at the Project site. Ambient water quality in the aquifer is brackish with an estimated TDS concentration of about 4,300 to 6,000 mg/L. The California drinking water standard for TDS is 1,000 mg/L. The stored water will be recovered from the same well when needed to meet peak summer demands.
- **Emergency storage.** In the event of a natural disaster, transmission pipeline failure, or if the domestic water supply wells need to be taken partially or completely offline for a period an additional volume of water would be stored that is not needed for seasonal recovery. This will provide the volume required to meet a suitable design flow rate and duration that is determined to be appropriate for an emergency.
- **Long-term storage.** Long-term storage, or "water banking" is increasingly used by water utilities to provide water supply reliability and sustainability at low cost. No additional construction cost would be required; however, the storage volume would be increased beyond what is necessary to meet seasonal and emergency storage demands. More water would be stored in wet years and other times of relatively low water demand. This additional volume of long-term stored water would be carried over for recovery in later year, and particularly during droughts.

  An important issue for long-term storage is the natural regional flow rate (feet per year) and direction that could cause stored water to move laterally downgradient so that it is no longer recoverable from the well in which it was recharged. Deeper ASR wells tend to have higher TDS values, but also lower flow velocity, as in feet per year as opposed to tens or hundreds of feet per year in shallower or unconfined aquifers. Wellfield design can partially overcome this constraint by providing a line of ASR wells oriented downgradient so that stored water that is no longer recoverable from upgradient ASR wells can be recovered from downgradient ASR wells.

  Deferring expansion of water treatment facilities is a secondary objective that could be useful for the City. Water recovered from the ASR well after storage will only need disinfection during the recovery, not retreatment of the water. This will be evaluated during the testing phase of the Project. To the extent that ASR can help meet peak demands with local seasonal storage, planned future expansion of the DGWTP, and associated cost, may be deferred.

Therefore, the impact will be less than significant.

Responses c), d), and e): No Impact. There would be no change to the existing drainage pattern or flood control facilities in the project vicinity or elsewhere in the city as a result of project implementation. The project would not increase the risk of flooding, nor would it involve surface water discharges that could adversely impact surface water quality. There is no impact.

There are no significant bodies of water near the project site that could result in the occurrence of a seiche or tsunami. Additionally, the project site and the surrounding areas are essentially flat, which precludes the possibility of mudflows occurring on the project site. There is no impact.

XI. LAND USE AND PLANNING

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Physically divide an established community?				x
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?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through b): No Impact. Implementation of the proposed project would not divide an established community as there is no residential communities located in the surrounding areas. The project would not conflict with the City of Lathrop General Plan or the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. There is no impact and no mitigation is required.

XII. MINERAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?				x
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?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through b): No Impact. As described in the City of Lathrop General Plan DEIR,[11] the Project site is located in MRZ-3, areas containing mineral deposits, the significance of which cannot be evaluated. The project would not result in the construction of any facilities or any changes in land use that would interfere with the extraction of mineral resources in the region. There is no impact.

[11] City of Lathrop. Draft Environmental Impact Report for the Lathrop General Plan Update. May 2022. Accessed July 2023.

XIII. NOISE

Would the project result in:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 applicable standards of other agencies?			x	~~x~~
b) Generation of excessive groundborne vibration or groundborne noise levels?			x	~~x~~
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 two 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?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through c): ~~No Impact~~ Less-than-Significant Impact. Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

Construction of the Project would generate some temporary noise during business hours, as dictated by the City's Noise Ordinance. ~~Implementation~~ Operation of the Project would not generate noise. The Project will not generate excessive groundborne vibration or groundborne noise levels. No permanent increases in ambient noise levels would occur as a result of project implementation, and the project would not generate new noise sensitive land uses. The impact would be less than significant.

Response c): No Impact. The project site is not located within two miles of a public airport or a private airstrip. There is no impact.

XIV. POPULATION AND HOUSING

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
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)?				x
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through b): No Impact. Implementation of the project would not directly result in population growth, nor would it convert any land use designations to a use that would allow for the construction of housing. The proposed project would not generate a significant number of new jobs which could lead indirectly to population growth.

The project would not extend water, wastewater and electrical infrastructure to an area that could result in indirect population growth as a result of new infrastructure. The project would utilize existing surface water allocations for aquifer storage and recovery. No homes or people would be displaced by the project. There is no impact.

XV. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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?				x
Police protection?				x
Schools?				x
Parks?				x
Other public facilities?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a): No Impact. As described above, the project would not induce population growth and would not increase the demand for public services in the City of Lathrop. There is no impact.

XVI. RECREATION

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project 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?				x
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): No Impact. The proposed project would not increase the use of existing recreational facilities, nor would it include the construction of new recreational facilities. There is no impact.

XVII. TRANSPORTATION/TRAFFIC

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

RESPONSES TO CHECKLIST QUESTIONS

Response a) through d): No Impact. The proposed project would not increase vehicle traffic in the City of Lathrop. Project operations would not generate vehicle trips on area roadways, and the project would have no impact on traffic operations. The project site is not located in the vicinity of a public airport or private airstrip. Project implementation would have no impact on air traffic patterns. There are no roadway design improvements proposed as part of the project, and therefore, no changes to the area roadways would occur. The project would not increase area traffic and emergency access would not be impeded. Implementation of the proposed project would not result in an increased demand for parking at the injection well site. The project would have no impact on any existing plans or policies related to alternative transportation. There is no impact.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?		x		
ii) 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 Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.		x		

RESPONSES TO CHECKLIST QUESTIONS

Responses a): Less than Significant. The proposed Project site has been previously disturbed, the project proposes adding monitoring wells to the site for aquifer storage and recovery. However, the discovery of tribal cultural resources during ground-disturbing activities cannot be entirely discounted. The inadvertent discovery of tribal cultural resources during project implementation could be a potentially significant impact. This impact would be reduced to a less-than-significant level with implementation of **Mitigation Measure TCR-1**, which requires avoidance measures or the appropriate treatment of tribal cultural resources if discovered during project implementation. Therefore, the impact is less than significant with implementation of mitigation.

Mitigation Measure TCR-1

Implement Mitigation Measure CUL-1.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Require or result in the relocation or construction of new or expanded water, wastewater or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				x
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				x
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?				x
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?				x
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a) through e): No Impact. The primary objectives and purpose of the proposed project are to:

1. Improve the quality of potable water delivered to Lathrop customers.
2. Increase available supplies of high-quality water to meet peak demand, particularly during summer months.
3. Provide additional water supplies to meet demand during drought conditions.

The project would not increase the consumption of water in the City of Lathrop. All of the water used in the ASR project would come from existing surface water supplies that are currently entitled. Water delivered to City of Lathrop would not increase beyond existing levels, and no changes to surface water entitlements are proposed or needed. Water stored in the aquifer under the ASR program would be used for two primary purposes: 1) to meet peak hour summer water demands, and 2) for drought water supply. Peak hour demands occur daily during the summer months. The ASR water would supplement the water stored by the City in above-ground storage tanks, and water pumped from the wells assists the City in keeping water pressure within the distribution system within the desired pressure range.

By delivering stored, high quality surface water from SSJID, municipal water customers in Lathrop would receive the best quality water at their taps. Water not withdrawn from the aquifer for peak hour demand would remain in the groundwater basin for future use without degradation of quality.

The project would not generate solid waste, nor would it increase wastewater flows in the City of Lathrop. No new or expanded facilities would be constructed, and the project would rely on existing City infrastructure. Overall, the project would provide benefits to the City's water system, and no adverse impacts would occur.

XX. WILDFIRE

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				x
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?				x
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?				x
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?				x

RESPONSES TO CHECKLIST QUESTIONS

Responses a), c): The proposed improvements would reduce fire risks on and relating to the project site relative to existing conditions. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Fire risk would not be increased as a result of the proposed Project. Therefore, there would be no impact.

Response b): The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The Project would not result in development of structures or housing which would subject residents, visitors, or workers to long-term wildfire danger. Therefore, there would be no impact.

Response d): The project does not propose any housing that would result in direct population growth. However, projects that do not directly induce population growth still have the potential to result in indirect population growth through the creation of jobs or the extension of infrastructure into areas that were not previously served. The proposed project will not result in intensification of land uses, or the addition of structures or uses that would differ from the current General Plan. As such, exposure to people or structures to any significant risk would not result. Therefore, there would be no impact.

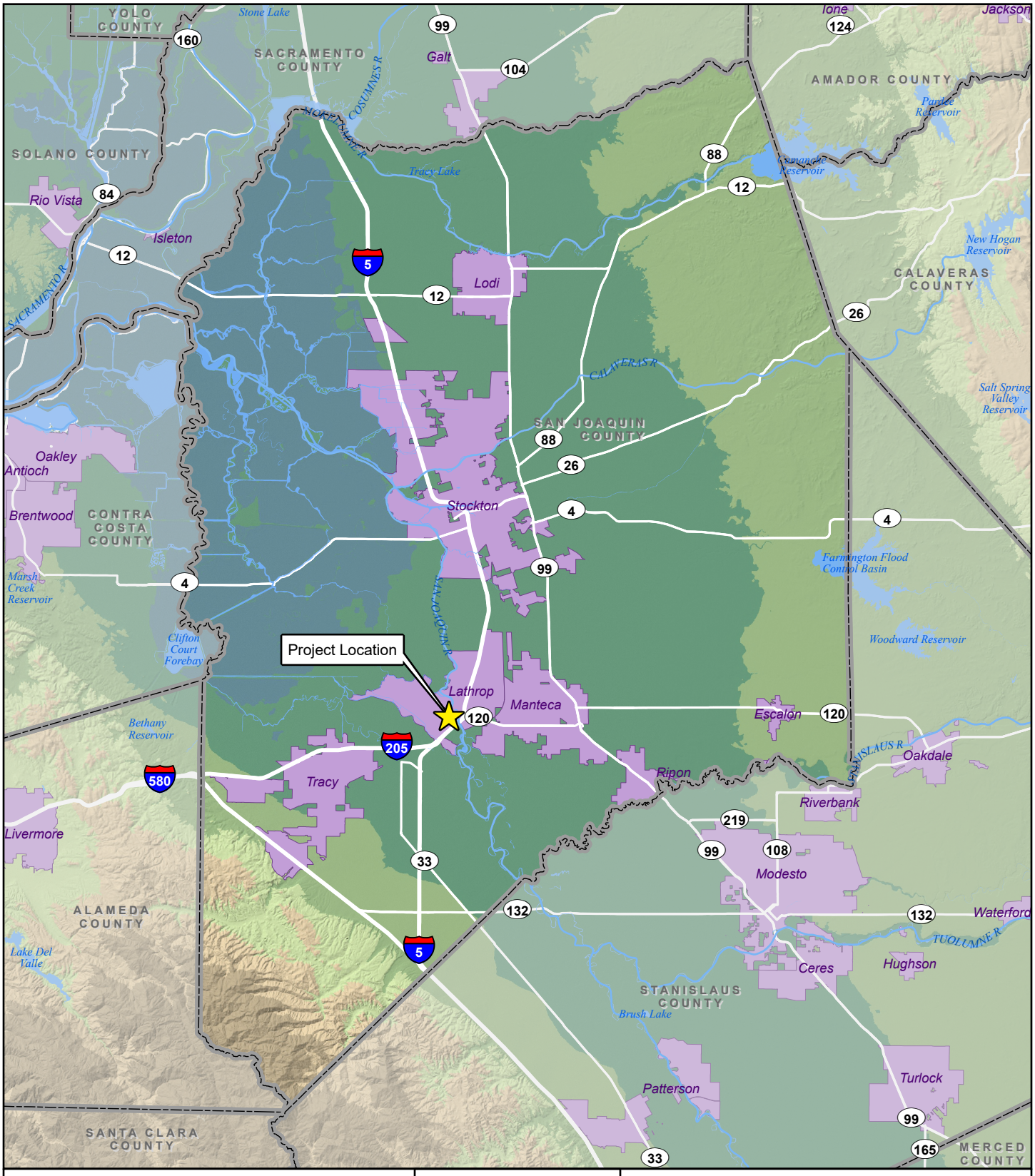
XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Does 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 a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		x		
b) Does 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)?			x	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			x	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation. The proposed Project would not result in any impacts to biological resources including sensitive habitat, aquatic species, plant or animal communities, rare or endangered plants or animals. However, the proposed Project could inadvertently encounter previously unknown cultural, archaeological, or tribal cultural resources, or human remains. Implementation of **Mitigation Measures CUL-1, CUL-2, and TRC-1** would require avoidance measures or the appropriate treatment of archaeological resources, tribal cultural resources, and human remains if discovered during project implementation. Therefore, the impact would be less than significant with mitigation.

Responses b), c): Less than Significant. As described throughout the analysis above, the proposed project would not result in any significant impacts to the environment. The project would not result in any cumulative impacts, impacts to biological resources or impacts to cultural and/or historical resources. There are no impacts.



LEGEND

- Incorporated Area
- County Boundary

N

0 2½ 5

Miles

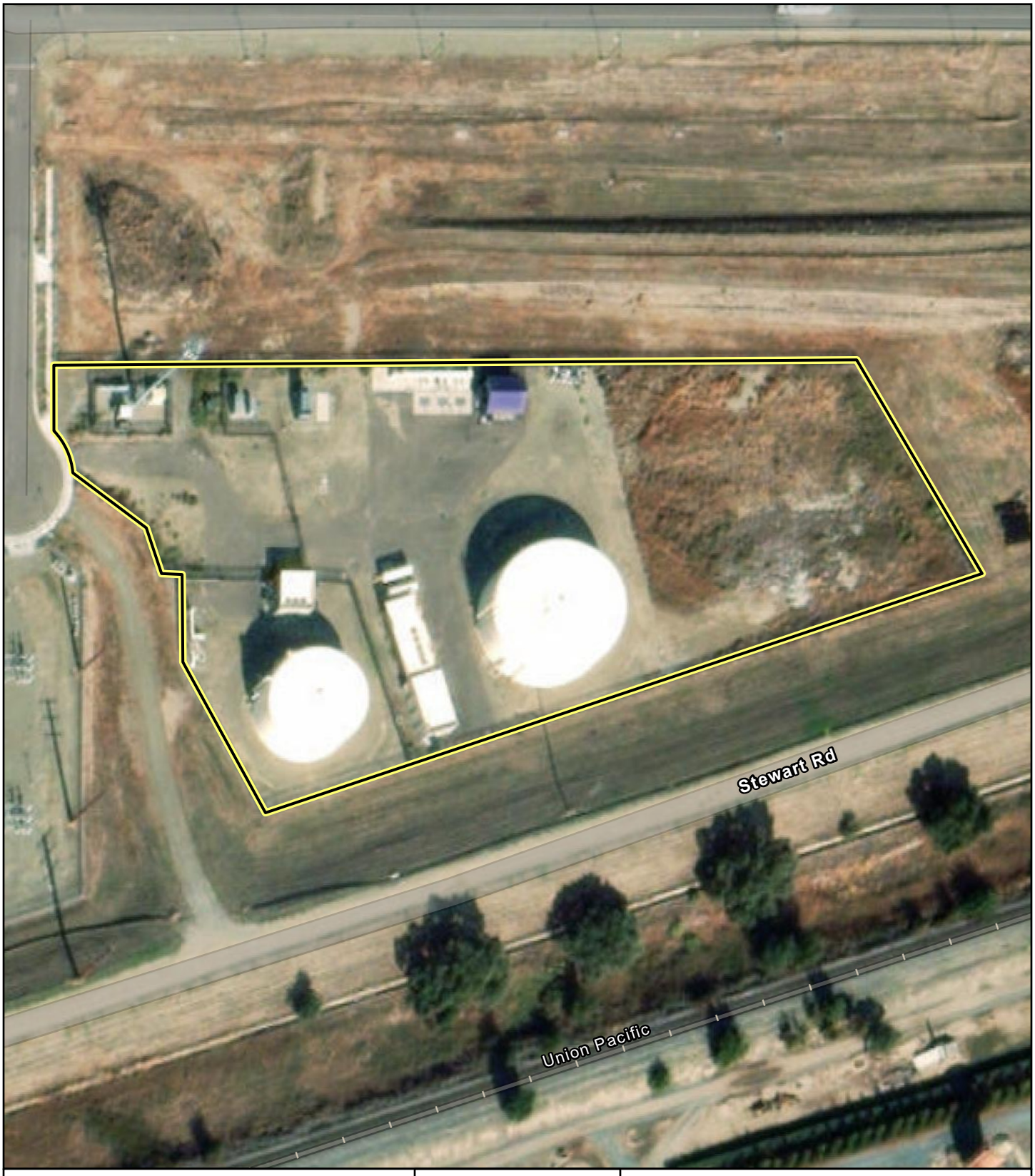
LATHROP AQUIFER STORAGE RECOVERY

Figure 1. Regional Project Location

Sources: San Joaquin County GIS. Map date: June 30, 2023.

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LEGEND

Site Boundary

N

0 50 100

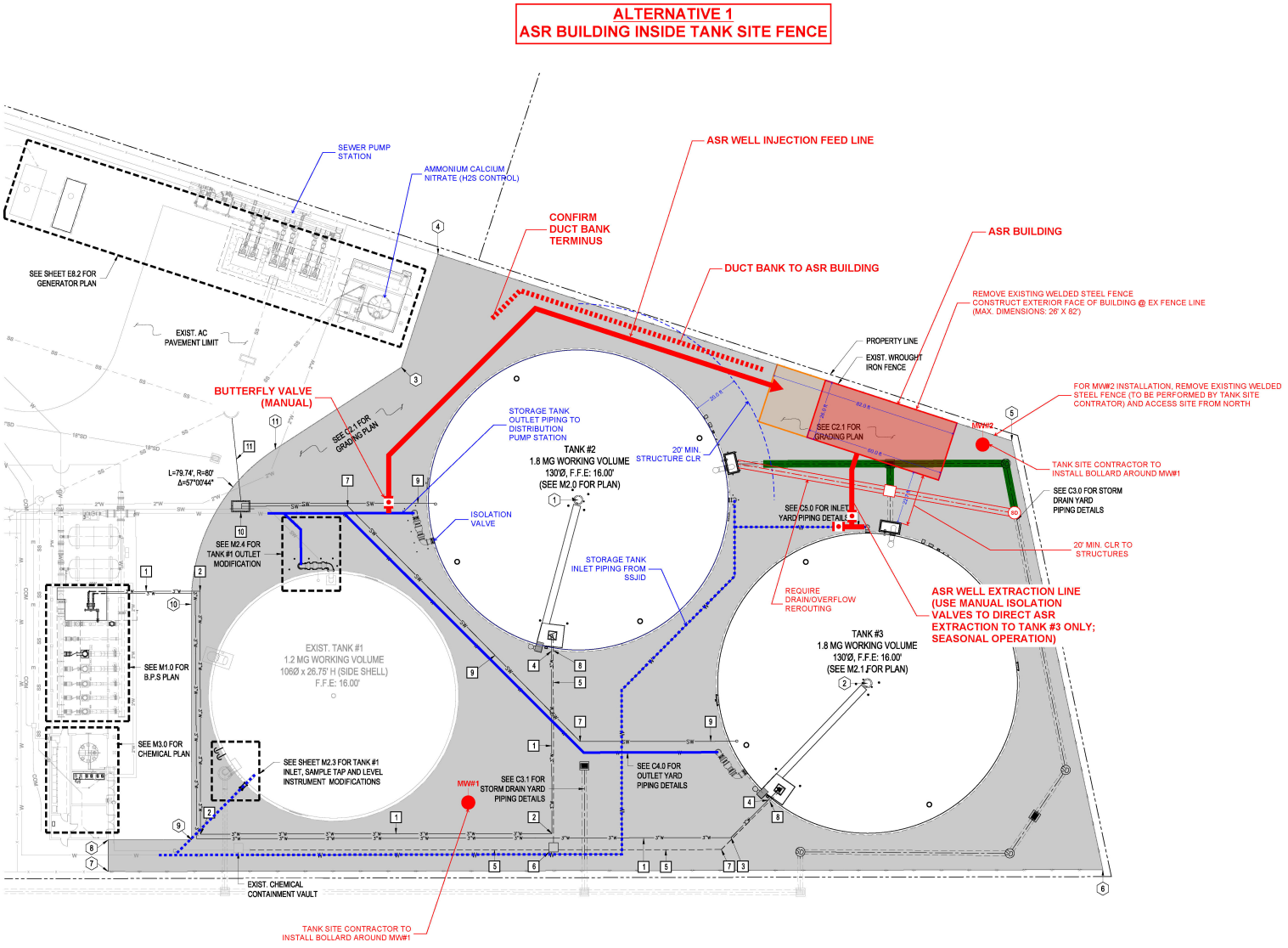
US Feet

LATHROP AQUIFER STORAGE RECOVERY

Figure 2. Site Aerial Map

Sources: ArcGIS Map Service; San Joaquin County GIS. Map date: June 30, 2023.

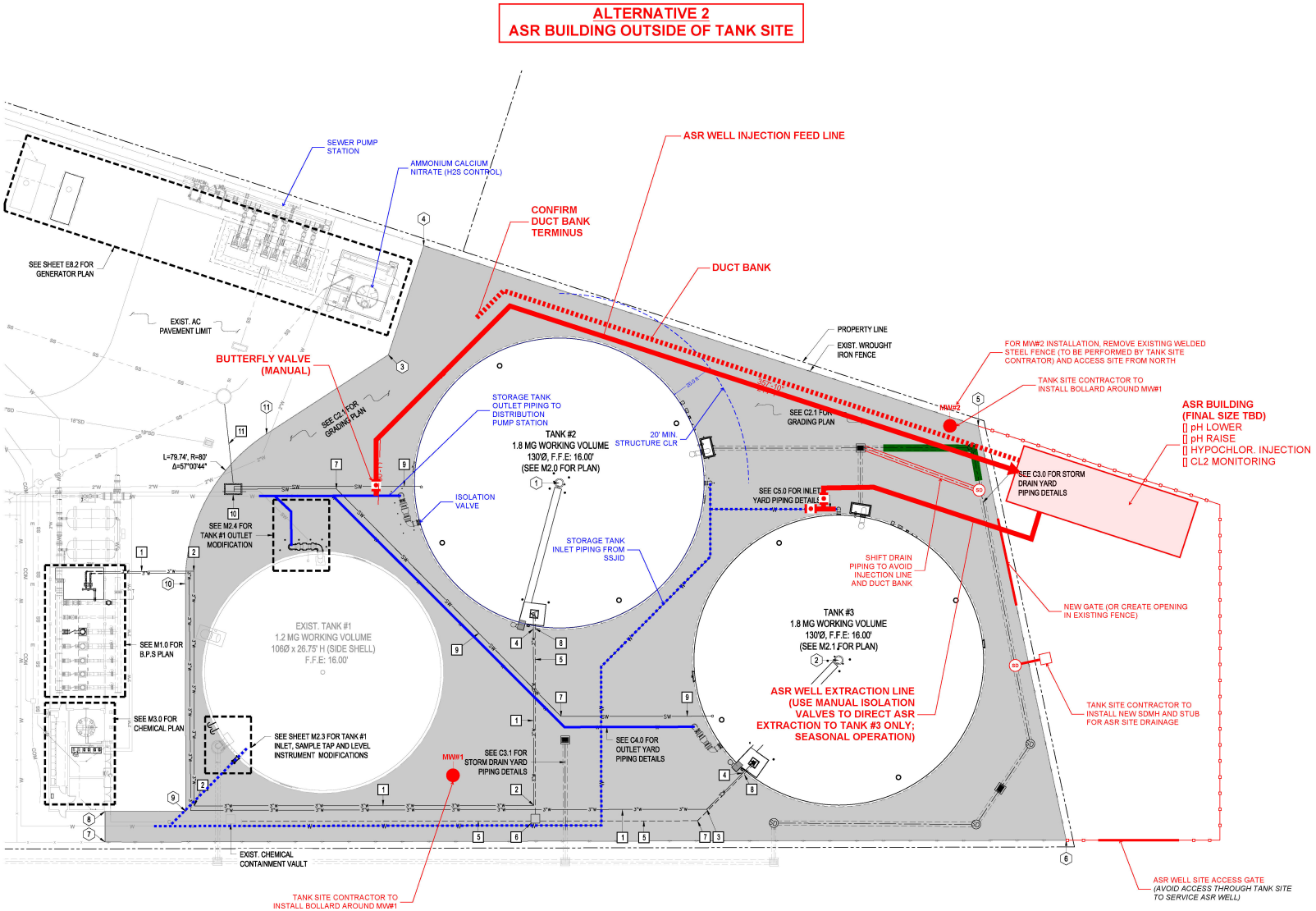
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LATHROP AQUIFER STORAGE RECOVERY

Figure 3. Proposed Site Plan, Alternative 1

Sources: City of Lathrop. Map date: July 27, 2023.



LATHROP AQUIFER STORAGE RECOVERY

Figure 4. Proposed Site Plan, Alternative 2

Sources: City of Lathrop. Map date: July 27, 2023.