

City of Atwater Initial Study/ Negative Declaration

CITY OF ATWATER 1,2,3-TCP MITIGATION PROJECT

PREPARED BY THE CITY OF ATWATER

COMMUNITY DEVELOPMENT DEPARTMENT

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Acronyms

BAT	Best Available Technology
BMP	Best Management Practice
CARB	California Air Research Board
CASQA	California Association of Stormwater Quality Agencies
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
DBCP	1,2-dibromo-3-chloropropane
DDW	Division of Drinking Water
DMG	Division of Mines and Geology
EIR	Environmental Impact Report
EQ Zapp	Earthquake Hazard Zone Application
FRA	Federal Railway Administration
FTA	Federal Transit Administration
GAC	Granular Activated Carbon
GSA	Groundwater Sustainability Agency
NAHC	Native American Heritage Center
IS	Initial Study
IX	Ion Exchange
MCL	Maximum Contaminant Level
mg/L	Milligrams per Liter
MMRP	Mitigation Monitoring and Reporting Plan
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
MSR	Municipal Service Review
MTZ	Mass Transfer Zone
NAAQS	National Air Quality Standards
ND	Negative Declaration
ppm	Parts Per Million
ppt	Parts Per Trillion
PRC	Public Resource Code
PWS	Public Water System
RFQ	Request for Qualification
SGMA	Sustainable Groundwater Management Act
SJVAPCD	San Joaquin Valley Air Pollution Control District
SJVAB	San Joaquin Valley Air Basin
SMARA	Surface Mining and Reclamation Act
SWRCB	State Water Resources Control Board
TCP	1,2,3-Trichloropropane
µg/L	Micrograms per Liter
USEPA	United States Environmental Protection Agency
WHTC	Wellhead Treatment Center

Introduction

Introduction and Regulatory Guidance

As specified in California Environmental Quality Act (CEQA) Guidelines Section 15367, the public agency that has the principal responsibility for carrying out or approving a project is the lead agency for CEQA compliance. The City of Atwater (City) has principal responsibility for approving the proposed project and is therefore the CEQA lead agency for this IS/ND.

The City, as the lead agency under CEQA, is the preparer of this Initial Study (IS) and proposed Negative Declaration (ND). This IS/ND evaluates the potential environmental impacts associated with the land acquisition, construction, and operation of the proposed 1,2,3-TCP Mitigation Project (Project). The Negative Declaration is in accordance with the California Environmental Quality Act (Public Resources Code, Sections 21000 et seq.), and the CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations).

The purpose of this Initial Study is to determine whether project implementation would result in potentially significant or significant effects on the environment. In accordance with CEQA Guidelines, Section 15064, an Environmental Impact Report (EIR) must be prepared if an initial study indicates that the proposed project under review may have a potentially significant impact on the environment. A negative declaration may be prepared instead if the lead agency prepares a written statement describing the reasons why a proposed project would not have a significant effect on the environment, and, therefore, why it does not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a negative declaration shall be prepared for a project subject to CEQA when either:

1. The initial study shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or
2. The initial study identified potentially significant effects, but revisions in the project plans or proposals made by or agreed to by the applicant before the negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and there is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

As summarized in the Environmental Checklist, this Initial Study determined that the proposed project would not have a significant effect on the environment, and therefore a negative declaration is proposed. Therefore, this document is an Initial Study/Negative Declaration (IS/ND).

Requirements of a Negative Declaration

The preparation of an IS/ND is governed by CEQA (Public Resources Code Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations [CCR] Section 15000, et seq.). Specifically, CEQA Guidelines Section 15063 (“Initial Study”) and Sections 15070–15075 (“Negative Declaration Process”) guide the process for the preparation of an IS/ND.

This IS/ND, as required by CEQA Guidelines Section 15071, contains (1) a brief description of the project, (2) the project location, (3) a proposed finding that the project will not have a significant effect on

the environment, (4) a copy of the IS documenting support for the findings, and (5) all mitigation measures to be implemented, if any.

Lead Agency

“Lead agency” means the public agency that has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment. Based on these criteria, the City of Atwater (City) is the lead agency for the project.

Document Organization and Content

The content and format of this IS/ND is organized to meet the requirements of CEQA. This document has been divided into the following sections:

- Introduction – This section explains the need for and organization of the document. Also included in this section is a checklist of the environmental factors that are potentially affected by the project.
- Project Information - This section provides general information regarding the project, including the project title, project description, lead agency and address, contact person, brief description of the project location, General Plan land use designations, zoning district designation, identification of surrounding land uses, identification of other public agencies whose review, approval, and/or permits may be required, including consultation of the California Native American tribes in accordance with Public Resources Code section 21080.3.1, and a determination of the analysis.
- Environmental Checklist – This section consists of the Environmental Settings Appendix G from the Association of Environmental Professionals 2020 CEQA California Environmental Quality Act Statute & Guidelines handbook. The checklist covers resource areas and determinations if the environmental resource will have “no impact,” “less than significant impact,” “less than significant with mitigation incorporated,” and “potentially significant impact.” Thorough analysis of each resource area is included and forms the basis for each determination.
- References – This section contains information on the websites, books, people, and other sources used in the preparation of this document.
- Figures – Includes materials used as visual aids for the preparation and understanding of the IS.
- Appendices – Contains supplementary materials that are not an essential part of the IS itself but are helpful in providing a more comprehensive understanding of the research included in the IS.

Public Review

This IS/ND will be circulated for a 30-day public review period from July 30, 2020 to August 28, 2020.

Comments regarding this IS/ND must be made in writing and submitted to Greg Thompson, 750 Bellevue Road, Atwater, CA 95301 or by email to gthompson@atwater.org.

Submissions must be made in writing and postmarked or received by email no later than August 28, 2020. Submissions must include a full name and address. All comments will be included in the final environmental document for this project and become part of the public record.

Comments should focus on the proposed findings that the project would have no significant effect on the environment. If the commenter believes that the project may have a significant environmental effect, it

would be helpful for the commenter to identify the specific effect(s) and explain why the effect(s) would occur and why it would be significant.

Availability of Document

The Draft Initial Study/Negative Declaration (IS/ND) is available for review at the City of Atwater, General Services Department, 750 Bellevue Road, Atwater, CA 95301 and on the City of Atwater website, <https://www.atwater.org>.

Incorporation by Reference

Pursuant to 15063(d)(3) of the state CEQA Guidelines, this IS incorporates by reference all or portions of other technical documents that are a matter of public record. Those documents either relate to the Project or provide additional information concerning the environmental setting in which the Project is proposed. The information contained in this IS is based, in part, on the following related technical studies that include the Project site or provide information addressing the general Project area:

Office of Administrative Law Matter Number: 2017-1115-01

State Water Resources Control Board: SBDDW-17-001 (Initial Statement of Reasons)

City of Atwater – 1,2,3-TCP Mitigation Damages Assessment (prepared by Provost & Pritchard Consulting Group)

Evaluation of Environmental Impacts

There are 20 environmental resource areas evaluated in the Environmental Checklist. A determination will be made based on the evaluations to show the impact the Project will have on each environmental resource. Environmental resources evaluated are:

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

Project Information

Project Sites

A previous analysis of the City's ground water pumping pattern over a 5-year period yielded results supporting the installation of Wellhead Treatment Centers (WHTC) at wells 13, 14, 15, 16, 17, 18, 19 and 20 (see figure 1.0 for existing well locations). Only well site 20 has enough available area to allow for onsite construction of a treatment center; all other wells will require offsite construction of treatment pipelines and WHTCs. See Figure 1.1 for preferred and alternative Wellhead Treatment Center locations. Well 15 is included in this document for consideration as a later or future phase of the Project. Based on the previous analysis of water usage, this will ensure the city can deliver a reliable and safe water supply to customers.

Project Description

The City is tasked with protecting public health and providing a safe water source for the residents of the City. In this effort the City proposes to install Wellhead Treatment Centers using granular activated carbon (GAC) treatment to manage 1,2,3,-Trichloropropane (TCP) levels by bringing the measured level of TCP to below the Maximum Contaminant Level (MCL) of 5 parts per trillion (ppt). GAC adsorption is considered as the Best Available Technology (BAT) and the most economical treatment solution to treat PWS with TCP levels above the MCL of 5ppt (SBDDW-17-001, pg. 6; Treatment Costs).

As cited in the *City of Atwater 1,2,3,-TCP Mitigation Damages Assessment* report, several wells (15, 16, 17, 18, 19) have also shown detections of 1,2-dibromo-3-chloropropane (DBCP). GAC has been shown to reduce levels of DBCP in other Public Water Systems (PWS).

Wellhead Treatment Centers will be installed to treat 8 well sites identified in this document. Each WHTC will be linked to existing wells through a pipe network consisting of, raw water lines and treated water lines. Conduits for control systems may also be necessary to link systems at WHTC sites and well sites. The majority of the raw and treated pipelines will be constructed within existing public right of ways with connections being made at WHTC sites and existing well sites.

Each treatment plant site would be equipped with a backwash reclaim tank to hold washwater produced during initial washing of newly delivered carbon. The washwater will be settled in the tank and the decanted water pumped back into the treatment plant. The treatment plants treating wells 13, 14, 15, 17 and 18 will include on-line nitrate analyzers to detect nitrate sloughing. Treatment plants constructed remotely from the well site will need to be equipped with a chlorination system for disinfection of the GAC effluent.

Well 20 is the only location with adequate area for the installation of the TCP removal system. The installation of the TCP removal systems for wells 13, 14, 15, 16, 17, 18 and 19 requires the purchase of additional property to accommodate the installations. Properties have been identified in a previously prepared report titled *City of Atwater 1, 2, 3,-TCP Mitigation Damage Assessment*, incorporated herein by reference.

Since the preparation of the *City of Atwater 1, 2, 3,-TCP Mitigation Damage Assessment*, the City of Atwater has identified alternative WHTC sites and they are identified herein as alternatives. Figure 1.1 shows locations for both proposed and alternative WHTC's.

Project Objective

Wellhead Treatment Centers will be installed and operated to efficiently and reliably achieve the following water treatment objectives:

- Reduce TCP effluent level to below 5 ppt;
- Reduce DBCP effluent level below 0.2 µg/L;
- Maintain or reduce effluent nitrate levels to equal or less than influent nitrate levels; and
- Deliver water to customers of a good bacteriological water quality.

The intent is that all objectives are met for water entering the City's distribution system.

Project Setting

Each of the Project sites are currently vacant lands in well-developed and urbanized areas, approximately ½ to 1 acre in size. The sites vary in their placement (See Figure 1.1), with some situated in a developed residential area, some in commercial areas, and some within the industrial areas of the City. Each location is proposed to be set back from the streetscape, screened from view of the public, and is consistent with current General Plan Land Use and Zoning designations.

Project Schedule

In order to meet the State Water Resource Control Board (SWRCB) order, the City Council has authorized the City to publish a Request for Qualifications (RFQ) seeking a progressive design-build procurement contract for the design and construction of the TCP removal systems. Utilizing a progressive design-build contract gives the City financial flexibility and streamlines the Project timeline to allow the Project to start in the summer of 2020, with compliance projected in April 2021. The construction program is anticipated to prioritize compliance with the SWRCB order and, accordingly, other minor work such as the construction of walls, fences, driveways, etc. may continue into summer 2021.

Design-build contracts combine professional design services and construction services into a single contract with the City. This contracting approach provides several efficiencies over the traditional approach of awarding separate contracts for design services and construction. These benefits include greater flexibility in awarding a contract, higher quality work, greater cost certainty, fewer claims and consolidated design-construction schedules.

Project Operation

Wellhead Treatment Centers would operate without personnel onsite and would only periodically require personnel onsite for service and replacement of GAC. The *1,2,3-TCP Mitigation Damages Assessment* anticipates a carbon usage rate of 0.15 lbs./1,000 gallons of treatment. Because the MCL for TCP (5 ppt) is equal to the detection limit (5 ppt), the City will need to change out the carbon before TCP has been detected in the treatment plant effluent. A series (lead-lag) vessel arrangement would be used, and the City would track progression of the TCP mass transfer zone (MTZ) through the GAC beds by sampling raw water at the 25%, 50%, 75%, and combined effluent sample locations. The city would need to schedule change-out of the carbon in the lead vessel when TCP is detected at either the 50% or 75% sample port in the lag vessel. After the carbon in the lead vessel has been replaced, the manifold valves would be re-configured so that the vessel with the fresh carbon becomes the lag vessel and the vessel with the older carbon becomes the lead vessel. It is assumed that the MTZ is short enough that it would pass completely through the lead vessel before TCP is detected at the 50% or 75% sampling port in the lag vessel. This assumption would need to be verified by monitoring the progression of TCP detection through both vessels when they are first brought online.

Each treatment plant would be equipped with a backwash reclaim tank for holding washwater from the new carbon. The washwater will be settled in the tank and the decanted water pumped back into the treatment plant.

Determination

The Environmental Checklist (Initial Study) was used to identify and analyze potential environmental impacts and includes a brief response to each potential impact based on analysis of the Project impacts to the environment.

Based on the Draft Initial Study and an extensive environmental analysis provided in this document, the proposed TCP project would result in less than significant impacts for the following issues: Aesthetics, Air Quality, Biological Resources, Geology/Soils, Greenhouse Gas Emissions, Hazards & Hazardous Materials, Noise, Population/Housing, Public Services, Recreation, Transportation, and Utilities/Service Systems. The project would have no impact on: Agricultural and Forestry Resources, Cultural Resources, Energy, Hydrology/Water Quality, Land Use/Planning, Mineral Resources, Tribal Cultural Resources, and Wildfire.

In accordance with §15064(f) of the CEQA Guidelines, a ND shall be prepared if the proposed project will not have a significant effect on the environment. Based on the available project information and the extensive environmental analysis presented in this document, there is no substantial evidence that the proposed project would have a significant effect on the environment.

The Community Development Department oversees ministerial projects and is a recommending department to the Planning Commission and to the City Council in approving projects and seeking environmental determinations that are discretionary to the City. The action taken to comply with the SWRCB/DDW Order would require publication and certification of the City Council by Resolution.

As discussed in the Project Schedule section, to meet the SWRCB order deadline the City has chosen to utilize a progressive design-build process. With the nature of the project being a progressive design-build there is the potential for unforeseen impacts once the project is underway.

In accordance with CEQA Guidelines Sections 15162 and 15163, a supplemental CEQA analysis (a supplement to this IS/ND) would be required under the following circumstances:

- Substantial changes in the project would result in new or worsened significant environmental impacts, or
- Substantial changes in the circumstances would result in new or worsened significant impacts, or
- New information of substantial importance shows that the project will have one or more significant effects not discussed previously, or an effect that will be substantially more severe than previously described.

A supplemental ND would be prepared by the City, with the same kind of notice and public review as this IS/ND, under one or more of the above circumstances. If a supplemental CEQA document is not needed, but there are minor technical changes or additions to the project that the City determines are necessary to analyze, then in accordance with CEQA Guidelines section 15164, an addendum to this IS/ND would be prepared. An addendum would not need to be circulated for public review but would require approval by the Community Development Director.

Environmental Checklist

1. **Project Title:** City of Atwater TCP Mitigation Project
2. **Lead Agency:** City of Atwater
750 Bellevue Road, Atwater, CA 95301
3. **Project Sponsor:** City of Atwater Department of Public Works
470 Aviator Drive, Atwater, CA 95301
4. **Contact Person:** Greg Thompson
City of Atwater, Public Works Director
750 Bellevue Road, Atwater, CA 95301
209-357-6342
gthompson@atwater.org
5. **Project Location(s):**
(See Figure 1.0 & 1.1)
Well 13
Chardonnay Way, 100 feet north of Fruitland Avenue
APN: 150-141-011
Well 14
Fay Drive, 140 feet west of Winton Way
APN: 001-170-006
Well 15 (included in this document for future phase)
380 Commerce Avenue
APN: 056-390-025
Well 16
2490 Granite Drive
APN: 004-010-010
Well 17
750 W Bellevue Road
APN: 002-231-055
Well 18
660 Juniper Avenue
APN: 004-170-070
Well 19
Clipper Court, 50 feet east of Shaffer Road
APN: 156-140-069
Well 20
709 Rancho Vista Drive
APN: 004-320-038
6. **General Plan Designation:** Varies, See Figure 1.0
7. **Zoning:** Varies, See Figure 1.0
8. **Description of Project:** Acquisition of property; design, construction, and operation of Wellhead Treatment Centers at various locations identified in Figure 1.1. See Project Information Section for full project description.

9. Surrounding Land Uses and Settings:

Table 1.0 Surrounding Land Uses and Settings

WHTC Site	General Plan Designation(s)		Zoning Designation(s)	
13/14/17	North-South-East-West	Low Density Residential Commercial Low Density Residential Path and Commercial	North-South-East-West	Low Density Residential Planned Development Low Density Residential Planned Development and Commercial
15 (P)	North-South-East-West	State Route 99 Manufacturing Manufacturing Manufacturing	North-South-East-West	State Route 99 Agricultural (Merced County) Heavy Industrial Heavy Industrial
15 (A1)	North-South-East-West	State Route 99 Institutional Manufacturing Business Park	North-South-East-West	State Route 99 Heavy Industrial Heavy Industrial Planned Development
15 (A2)	North-South-East-West	Manufacturing Manufacturing Manufacturing Institutional	North-South-East-West	Heavy Industrial Light Industrial Light Industrial Heavy Industrial
16	North-South-East-West	School Low Density Residential School Low Density Residential	North-South-East-West	Planned Development Planned Development Planned Development Planned Development
18	North-South-East-West	Low Density Residential Low Density Residential Future School Low Density Residential	North-South-East-West	Planned Development Low Density Residential Planned Development Planned Development
19 (P)	North-South-East-West	Medium Density Residential Medium Density Residential Medium Density Residential Low Density Residential	North-South-East-West	Planned Development Planned Development Planned Development Low Density Residential
19 (A)	North-South-East-West	Low Density Residential Commercial Low Density Residential Low Density Residential	North-South-East-West	Planned Development Commercial Planned Development Planned Development
20 (P)	North-South-East-West	High Density Residential Commercial Commercial Low Density Residential	North-South-East-West	Planned Development Planned Development Planned Development Planned Development

WHTC with (P) indicated primary and (A) indicates alternative

10. Affected Agencies:**Table 1.1 Affected Agencies**

Agency	Action
State	
State of California Central Valley Regional Water Quality Control Board	Approval
California Department of Water Resources	Approval
California Department of Fish and Wildlife	Review
San Joaquin Valley Air Pollution Control District	Review
Pacific Gas & Electric	Review
Local	
City of Atwater	Implementation and oversight of MMRP Issuance of Building Permits, Issuance of Encroachment Permits
City of Atwater City Council	Approval of Project Adoption of ND or MND Adoption of MMRP (if required)
Atwater Elementary School District (AESD)	Review Approval of Property Purchase
Merced Irrigation District (MID)	Review
Merced Irrigated-Urban Groundwater Sustainability Agency (GSA)	Review

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significant impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

No tribes have requested notification of projects in the City. Notification was sent to 3 tribes within the region that were identified in a previous Study. No responses have been received to date from California Native American tribes, however consultation is still ongoing.

Table 1.2 California Native American Tribe Notifications

California Native American Tribe Notifications	
Tribe and Contact	Date
North Valley Yokuts Tribe, Katherine Perez, Chairperson	4-24-2020
Southern Sierra Miwuk Nation, William Leonard, Chairperson	4-24-2020
Amah Mutsun Tribal Band, Valentin Lopez, Chairperson	4-24-2020

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

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 | ☐ Cultural Resources | ☐ Energy |
| ☐ Geology/Soils | ☐ Greenhouse Gas Emissions | ☐ Hazards & Hazardous Materials |
| ☐ Hydrology/Water Quality | ☐ Land Use/Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population/Housing | ☐ Public Services |
| ☐ Recreation | ☐ Transportation | ☐ Tribal Cultural Resources |
| ☐ Utilities/Service Systems | ☐ Wildfire | ☐ Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

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.

☐ 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

Greg Thompson
Printed Name

Date

City of Atwater
Agency

Evaluation of Environmental Impacts

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).

The Environmental Checklist will include a detailed discussion on the environmental impacts generated from the proposed project. The impacts will be categorized as, No Impact, Less Than Significant Impact, Less Than Significant Impact with Mitigation Incorporated, and Potentially Significant Impact. The determination of each category is as follows:

- No Impact: There would be no impact to the environment related to the proposed project.
 - Less Than Significant Impact: The impact generated from the proposed project would be minimal and would not require mitigation measures.
 - Less Than Significant Impact With Mitigation Incorporated: An impact that may have a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382). However, mitigations will minimize the environmental impact to Less Than Significant.
 - Potentially Significant Impact: An impact that is “potentially significant” and implementation of mitigations cannot ensure proper recategorization to Less Than Significant Impact. Potentially Significant Impacts require in-depth analysis. In cases where in-depth analysis is needed an EIR is required.
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 “Earlier Analyses,” as described in (5) below, 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 measure 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. 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Aesthetics Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site 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?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Response

The City of Atwater General Plan identifies scenic corridors in the Open Space and Conservation Element. These scenic corridors are:

- Atwater Boulevard
- First Street
- Bellevue Road
- Shaffer Road
- Winton Way
- Broadway from Winton Way to First Street
- Buhach Road
- Third Street
- Part of Grove Avenue
- All entrances to the City

The General Plan states “*City policy aims to protect and beautify these streets with specific policies regulating signs, utility lines, land use, and other activities which would detract from the aesthetic value of these corridors. Also the City encourages actions that enhance the scenic value of these corridors, such as landscaping, maintenance, and architectural design.*”

The General Plan describes the preservation of streetscapes and does not identify any vistas. While WHTC’s 18 and 19 are anticipated to be located adjacent to Shaffer Road and Juniper Avenue the project will have no impact on the streetscapes. These WHTC’s will incorporate landscaping to screen equipment from the visual line of sight and help enhance scenic value along these corridors. Equipment screening is required by City Municipal Code and would be required by any other project.

Construction activities will occur as necessary for approximately 9-12 months and will be visible from the adjacent roadsides; however, the construction activities will be temporary in nature and will not affect a scenic vista, as none exist in the Project area. The improvements at the WHTC’s do not cause damage to trees, rock outcroppings, or historic buildings.

WHTC sites may include site lighting. Site lighting will comply with CALGreen Non-Residential Mandatory Measures. Atwater Municipal Code Title 17 mandates lighting shall be shielded and directed away from adjacent properties and roadways.

The impact will be *less than significant*.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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) prepared by the California Dept. 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 the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
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?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Response

All well sites and WHTC's are located within the corporate limits of the City of Atwater. The new water infrastructure and pipeline will be located in areas of the City considered urban. Given that all well sites are all located within the corporate limits of the City and within well urbanized areas, the proposed project does not have the potential to result in the conversion of farmland to non-farmland or non-agricultural uses or forestland uses to non-forestland. The proposed Project sites are not under a Williamson Act contract and are not zoned for agricultural purposes or defined as Prime Farmland or Farmland of Local or State Importance as shown on the California Important Farmland Finder. The

proposed Project is not zoned for forestland and does not propose any zone changes related to forest or timberland. No conversion of forestland, as defined under Public Resource Code or General Code, as referenced above, would occur as a result of the proposed Project.

Surrounding land uses include both developed and undeveloped industrial, commercial, residential and school. Undeveloped lands are all within the Corporate limits of the City of Atwater and have planned urban uses by the Atwater City General Plan. Given that the surrounding property is already planned and zoned for urban uses, the proposed Project does not facilitate the conversion of Farmland to Non-agricultural uses. In addition, the subject sites are not located on nor surrounded by forest land or forest uses; as such the proposed project would have *No Impact* on Agricultural and Forestry Resources.

The impact will be *No Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Air Quality Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Response

The following responses are based on the Air Quality and Greenhouse Gas Memorandum prepared by LSA which is attached as Appendix C.

Air Quality Background

Air quality is primarily a function of both local climate, local sources of air pollution and regional pollution transport. The amount of a given pollutant in the atmosphere is determined by the amount of the pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain, and for photochemical pollutants, sunshine.

A region's topographic features have a direct correlation with air pollution flow and, therefore, are used to determine the boundary of air basins. The proposed project is located in the County of Merced, in the City of Atwater, within the jurisdiction of the SJVAPCD, which regulates air quality in the San Joaquin Valley Air Basin (SJVAB).

A threshold of significance is defined by the SJVAPCD in its GAMAQI¹ as an identifiable quantitative, qualitative, or performance level of a particular environmental effect. Non-compliance with a threshold of significance means the effect will normally be determined to be significant. Compliance with a threshold of significance means the effect normally will be determined to be less than significant. The SJVAPCD has established thresholds of significance for criteria pollutant emissions generated during construction and operation of projects as shown in Table 2.0 below.

Table 2.0: SJVAPCD Construction and Operation Thresholds of Significance (Tons/Year)

	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Construction Thresholds	100	10	10	27	15	15
Operation Thresholds	100	10	10	27	15	15

Source: SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. 2015.

CO = carbon monoxide

Tons/Year = Tons per year

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROG = Reactive organic compounds

SJVAPCD = San Joaquin Valley Air Pollution Control District

SO_x = sulfur oxides

The emissions thresholds in the SJVAPCD GAMAQI were established based on the attainment status of the air basin in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Air Quality Impacts

Consistency with Applicable Air Quality Plans

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the San Joaquin Valley into attainment, the SJVAPCD has developed the 2013 Plan for the Revoked 1-Hour Ozone Standard (Ozone Plan), adopted on September 19, 2013.² The SJVAPCD also adopted the 2016 Plan for the 2008 8-Hour Ozone Standard in June 2016 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.³

To assure the SJVAB's continued attainment of the USEPA PM₁₀ standard, the SJVAPCD adopted the 2007 PM₁₀ Maintenance Plan in September 2007.⁴ SJVAPCD Regulation VIII (Fugitive PM₁₀ Prohibitions) is designed to reduce PM₁₀ emissions generated by human activity. The SJVAPCD adopted

¹ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. 2015. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>, accessed June 2020.

² San Joaquin Valley Air Pollution Control District, 2013. *2013 Plan for the Revoked 1-Hour Ozone Standard*. September. Website: www.valleyair.org/Air_Quality_Plans/Ozone-OneHourPlan-2013.htm, accessed June 2020.

³ San Joaquin Valley Air Pollution Control District, 2016. *2016 Plan for the 2008 8-Hour Ozone Standard*. June. Website: www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm, accessed June 2020.

⁴ San Joaquin Valley Air Pollution Control District, 2007. *2007 PM₁₀ Maintenance Plan and Request for Redesignation*. Website: www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf, accessed June 2020.

the 2015 Plan for the 1997 PM_{2.5} Standard in April 2015 to address the USEPA annual PM_{2.5} standard of 15 µg/m³ and 24-hour PM_{2.5} standard of 65 µg/m³.⁵

CEQA requires that certain proposed projects be analyzed for consistency with the applicable air quality plan. For a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant impact on air quality. In addition, emission reductions achieved through implementation of offset requirements are a major component of the SJVAPCD air quality plans. As discussed below, construction of the proposed project would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance. Implementation of SJVAPCD Regulation VIII would further reduce construction dust impacts. Operational emissions associated with the proposed project would also not exceed SJVAPCD established significance thresholds for CO, NO_x, ROG, SO_x, PM₁₀, or PM_{2.5} emissions. Therefore, the proposed project would not conflict with or obstruct implementation of SJVAPCD air quality plans.

Short-Term Construction Emissions

Construction activities can generate a substantial amount of air pollution, and in some cases can represent the largest air quality impact associated with a project. While construction activities are considered temporary, the short-term impacts can still contribute to exceedances of air quality standards.

Construction activities include site preparation, grading, building construction, paving, and architectural coating. The emissions generated from these common construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel and gasoline powered equipment, portable auxiliary equipment, and worker commute trips.

The California Emissions Estimator Model (CalEEMod Version 2016.3.2), was used to estimate construction emissions for the proposed project. Construction equipment was estimated using CalEEMod default values. For purposes of this CalEEMod analysis, the construction schedule for all improvements was assumed to be approximately 12 months. Attachment A of the memorandum (Appendix C) contains CalEEMod output worksheets. Results, summarized in Table 2.1, were compared to SJVAPCD thresholds of significance for construction impacts.

Table 2.1: Project Construction Emissions (Tons/Year)

	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Project Construction Emissions	2.2	2.4	1.0	<0.01	0.3	0.2
SJVAPCD Significance Threshold	100	10	10	27	15	15
Exceed Threshold?	No	No	No	No	No	No

Source: Compiled by LSA Associates, Inc., (June 2020).

CO = carbon monoxide

Tons/Year = Tons per year

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROG = reactive organic compounds

SJVAPCD = San Joaquin Valley Air Pollution Control District

SO_x = sulfur oxides

In addition to the construction period thresholds of significance, the SJVAPCD has implemented Regulation VIII measures for dust control during construction. These control measures are intended to

⁵ San Joaquin Valley Air Pollution Control District, 2015. *2015 Plan for the 1997 PM_{2.5} Standard*. April. Website: www.valleyair.org/Air_Quality_Plans/PM25Plans2015.htm, accessed June 2020.

reduce the amount of PM₁₀ emissions during the construction period. Implementation of the following fugitive dust control measures would ensure that the proposed project complies with Regulation VIII and further reduces the short-term construction period air quality impacts.

As shown in Table 2.1, the short-term construction emissions associated with the proposed project would be well below SJVAPCD established significance thresholds. Therefore, construction of the proposed project would not result in a violation of air quality standards.

Fugitive Dust Control Measures: Consistent with SJVAPCD Regulation VIII (Fugitive PM₁₀ Prohibitions), the following controls are required to be included as specifications for the proposed project and implemented at the construction site:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.

Long-Term Operational Emissions

Long-term emissions associated with a project typically include mobile source emissions that would result from project related vehicle trips. Other long-term sources can include stationary and area source emissions from the consumption of natural gas and electricity, landscape equipment, and use of consumer products. Long-term air pollutant emissions would affect the entire SJVAB.

Long-term operation emissions associated with the proposed project would be negligible as the water treatment sites are on existing maintenance routes for public works staff. Employee trips would be consistent with existing conditions. The project is also not expected to result in other stationary or area source emissions once operational as the wells are currently operation and the treatment process would not result in any stationary source emissions.

As such, the long-term operational emissions associated with the proposed project would not exceed SJVAPCD established significance thresholds for CO, NO_x, ROG, SO_x, PM₁₀, or PM_{2.5} emissions. Therefore, the proposed project would not result in a violation of air quality standards.

Cumulative Impacts

CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. Therefore, if annual emissions of construction- or operational-related criteria air pollutants exceed any applicable threshold established by the SJVAPCD, the proposed project would result in a cumulatively significant impact. As discussed above, the proposed project's construction emissions of criteria pollutants are estimated to be well below the emissions threshold established for the region. As discussed above, operational emissions are not expected to change with implementation of the project. Therefore, operational emissions associated with the proposed project would also not exceed SJVAPCD established significance thresholds for CO, ROG, NO_x, SO_x, PM₁₀, or PM_{2.5} emissions. As such, the project would 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.

Sensitive Receptors

Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units. The seven project sites are a mixture of zoning types, such as, residential, commercial, and industrial. The existing Wellhead 19, has the closest sensitive receptor to any project site. The single-family residence is located approximately 15 feet east of Wellhead 19. Construction activities associated with the proposed projects sites would generate airborne particulates and fugitive dust, as well as a small quantity of pollutants associated with the use of construction equipment (e.g., diesel-fueled vehicles and equipment) on a short-term basis. However, construction contractors would be required to implement measures to minimize emissions by following SJVAPCD Regulation VIII, as described above. Project construction emissions would be well below SJVAPCD significance thresholds. Therefore, the project is not expected to result in substantial pollutant concentrations that would affect sensitive receptors.

Objectionable Odors

The proposed project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time near the project site. However, they would be limited to the immediate vicinity of the construction site and are not likely to adversely affect people off-site by resulting in confirmed odor complaints due to air dispersion that would occur with distance. Additionally, once operational the proposed project would not include any sources of significant odors that could cause complaints from surrounding uses.

This impact would be *less than significant*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Biological Resources would the project:				
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Response

The proposed WHTC sites are all in well urbanized and developed areas with no sites containing riparian habitat or other sensitive natural communities, including wetlands. Undeveloped WHTC sites have been regularly disturbed in association of fire abatement clearing semiannually and have no potential for habitat, thus, the WHTC sites do not support any wildlife movement corridors including streams and waterways that could be used by migratory fish or other wildlife species.

As a result of the existing disturbed or developed nature of each WHTC site, the construction activities associated with the proposed project would not result in adverse effects to any special-status plant, and wildlife species or riparian habitat. Existing WHTC sites are mostly cleared ground with some having pasture grasses and weeds with the exception of WHTC-16, which has Scotch grass and one Mulberry tree that will be removed as part of the project. The City of Atwater's Adopted Urban Forest Master Plan does not identify any of the WHTC sites in the document or identify trees, shrubs or grasses on these sites as sensitive or protected.

Given the existing highly disturbed nature of all WHTC sites and the urbanized areas surrounding project sites, the project would result in a *less than significant* impact related to biological resources.

The impact will be *less than significant*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Cultural Resources Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☒
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Response

WHTC sites are not located on or adjacent to any known Historical or Cultural Resources as defined in California Code of Resources section 15064.5. No project site or adjacent property or structures are listed or eligible for listing in the California Register of Historical resources, nor eligible or listed in any local registry. Project sites are not known to have any Historical Significance as archaeological resources. Surrounding areas are well-urbanized and developed.

The City of Atwater sent project notification to 3 tribes within the region on April 24, 2020. No responses have been received to date from Native American tribes, however consultation is still ongoing. No WHTC sites are known to exist on sites with cultural significance, archaeological resources, paleontological resources, or human remains. Consistent with state and federal statutes, in the event any archaeological, paleontological or human remains are discovered during ground disturbing activities, all work within 50 feet of the findings shall be halted until a qualified archeologist can identify the findings and assess its significance. If human remains are encountered during construction, the Merced County Coroner will be notified to investigate and determine proper actions for treatment and disposition. If the remains are identified to be of a Native American, California Health and Safety Code 7050.5 requires the Merced County Coroner to notify the Native American Heritage Center (NAHC) within 24 hours of discovery. The NAHC will be allowed to identify the most likely descendent and allow them to recommend treatment of the remains in accordance with the California Public Resources Code (PRC) 5097.98.

Taking into consideration no previous environmental documents or studies in the City of Atwater have identified any archaeological, paleontological, or tribal resources within the City of Atwater, and no WHTC sites are known to exist on such, the project would result in a *Less Than Significant Impact* related to Cultural Resources.

The impact will be *Less Than Significant Impact*.

Mitigation Measures: None are required

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

Response

Construction equipment used over the approximately 9 to 12-month construction phase would conform to the California Air Resources Board (CARB) regulations and California emissions standards. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies).

The project would utilize construction contractors which practice compliance with applicable CARB regulations regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, the CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, as required by California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, idling times of construction vehicles are limited to no more than five minutes, thereby minimizing or eliminating unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

For reasons identified above, the proposed project would not result in an inefficient, wasteful, or unnecessary use of energy. Construction energy impacts would be less than significant

The project would be designed and constructed in accordance with the State's Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used as part of the site. Title 24 standards, widely regarded as the most advanced energy efficiency standards, would help reduce energy consumption and promote energy conservation.

The City of Atwater currently does not have any renewable energy plan or energy efficiency plans that this project would conflict with or obstruct. As previously stated, the project will comply with the existing State of California energy efficiency regulations of Title 24, such as the California Energy Code and CALGreen. Adherence to state code requirements would ensure the project would no result in wasteful or inefficient use of energy resources.

Therefore, the proposed project would not result in an inefficient, wasteful, or unnecessary use of energy while having no conflict with any existing energy policies. Operational energy impacts would have a *Less Than Significant Impact*.

The impact will be *Less Than Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
7. Geology and Soils Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
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.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☐

Response

The City of Atwater is not zoned within a currently delineated Alquist-Priolo Earthquake Fault Zone. A review of the California Geological Survey (CGS) Earthquake Hazard Zone Application (EQ Zapp) identified no active faults, or areas evaluated for liquefaction and landslides within the City of Atwater. The closest active fault is the Ortigalita Fault in western Merced County approximately 34 miles southwest of the City of Atwater, with the San Andreas Fault approximately 60 miles southwest of the

City of Atwater. Although the project is located in an area of low seismic activity, the project could be affected by groundshaking from nearby faults. The potential for strong seismic ground shaking on the project site is not a significant environmental concern due to the infrequent seismic activity of the area and distance to the faults. The project area does not contain soils suitable for liquefaction. Furthermore, soil conditions on the site are not prone to soil instability due to their low shrink-swell behavior.

The City of Atwater has adopted the California Building Code (CBC), Title 24, 2019 edition for all construction projects. Title 24 has been specifically tailored to incorporate specific standards and building regulation for earthquake conditions. The proposed project will be required to comply with the regulations and standards pertaining to seismic hazards within the CBC, Title 24.

The proposed Project sites have a generally flat topography and do not include any Project features that would result in soil erosion or loss of topsoil. The Project would be required to comply with the General Construction Permit and implementation of a Storm Water Pollution Prevention Plan to prevent sediment erosion risk from construction activities. Best management practices would be implemented by the Project to minimize pollution of stormwater.

Substantial grade change would not occur in the topography to the point where the project would expose people or structures to potential adverse effects such as liquefaction or landslides. The soils in the City of Atwater are mostly sandy loam which is not prone to soil instability. No sewer or septic systems will be installed as part of the project.

As previously discussed in the Cultural Resources section of this document, no known paleontological resources are known to potentially exist in the City of Atwater or near any of the project sites. In addition, the project sites are located in well urbanized areas and have been graded and regularly cleared for fire protection with no signs of unique geological features.

Therefore we would find a *Less Than Significant Impact* to geology and soils.

The impact will be *Less Than Significant Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
8. Greenhouse Gas Emissions Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Response

Greenhouse Gas and Global Climate Change Background

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)
- Nitrogen Trifluoride (NF₃)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO₂, CH₄, and N₂O, some gases, like NF₃, HFCs, PFCs, and SF₆ are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to CO₂, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂e).

Construction Greenhouse Gas Emissions

Construction activities, such as site preparation, site grading, on-site heavy-duty construction vehicles, equipment hauling materials to and from the project site, and motor vehicles transporting the construction crew would produce combustion emissions from various sources. During construction of the proposed project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Construction GHG emissions associated with the proposed project were estimated using CalEEMod (Version 2016.3.2). Attachment A of the Air Quality and Greenhouse Gas Memorandum contains CalEEMod output worksheets. Based on the CalEEMod results, construction of the proposed project would generate approximately 359 metric tons (MT) of Carbon Dioxide Equivalent (CO₂e). The SJVAPCD does not recommend assessing the significance of construction GHG emissions because these emissions would be temporary.

Operational Greenhouse Gas Emissions

Long-term operation of the proposed project is not expected to generate substantial GHG emissions from mobile sources and indirect emissions from sources related to energy consumption. Each site's treatment plant would require some energy use that would result in negligible emissions and vehicle trips are not expected to increase with implementation of the project. The additional treatment facilities will not require on-site employees nor require additional maintenance generated vehicle trips from existing routes. Therefore, once operational, the project would not result in the generation of substantial GHG emissions. As such, operation of the project would not have a significant impact on the environment and project-related impacts would be less than significant.

Consistency with Applicable Plans

The City of Atwater does not have an adopted Climate Action Plan or GHG Reduction Plan. Therefore, the following discussion evaluates the proposed project according to the goals of Assembly Bill (AB) 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197.

AB 32 is aimed at reducing GHG emissions to 1990 levels by 2020. AB 32 requires the California Air Resource Board (CARB) to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The AB 32 Scoping Plan has a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

Executive Order Executive Order B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan, to reflect the 2030 target set by Executive Order B-30-15 and codified by Senate Bill (SB) 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

As identified above, the AB 32 Scoping Plan contains GHG reduction measures that work towards reducing GHG emissions, consistent with the targets set by AB 32, Executive Order B-30-15 and codified

by SB 32 and AB 197. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. Energy usage on the project sites during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Therefore, the proposed project would not conflict with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. The purpose of the project is to install water treatment to meet the water quality objectives for treating the City's water supply. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. In addition, as discussed above, employee trips would continue on the same routes for maintenance and total miles traveled would remain the same with implementation of the proposed project; therefore, the project would not result in additional vehicle trips and would not conflict with reduction targets for passenger vehicles. Therefore, the proposed project would not conflict with policies and regulations that have been adopted for the purpose of reducing GHG from transportation sources.

The proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197 and would be consistent with applicable state plans and programs designed to reduce GHG emissions. Therefore, the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs and impacts would be less than significant.

The impact will be *less than significant*.

Mitigation Measures: None are required

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

Response

The construction activities associated with the construction of the WHTC's will include motor equipment that requires fueling and routine maintenance. Motor equipment fuels: gasoline, and diesel, are considered hazardous. The hauling, storage and use of fuels is regulated under federal, state, and local laws. The contractor and/or their subcontractors will be responsible to adhere to these laws.

The operation of WHTC's may require the use of small quantities of hazardous chemicals such as petroleum products, thinners, and paints. These hazardous products would be used for periodical maintenance and cleaning of the WHTC's. The treatment operation will utilize water treatment chemicals already in use at city wells and GAC vessels to manage TCP levels in the public water system. The operation of the WHTC is subject to federal, state, and local requirements and regulations that are designed to minimize risks from accidental releases of hazardous materials. On-going operation will require replacement of GAC in the treatment vessels. Removal and disposal of contaminated GAC is an activity which may require special handling as a hazardous waste. Spent GAC potentially produced by this operation must be stored and labeled in accordance with federal, state, and local government requirements. The entire process of waste carbon management will be handled by an independent contractor under strict federal and state guidelines and licensing requirements.

The exchange of clean virgin carbon for spent carbon is a closed loop process wherein the bulk carbon is hydraulically transferred through pressure hoses between the treatment vessels and the transfer trucks. This process is similar to but far less hazardous than the common transfer of gasoline from a tanker to gas station storage tanks.

Based on the aforementioned licensing requirements and the review and approval of regulatory agencies such as the Environmental Health Department and the California Department of Health Services (CDHS), it is determined that potential safety risks and adverse environmental effects relative to the release of spent carbon will be reduced to a negligible level because of implementation of compliance with a Hazardous Materials Business Plan, transport and disposal of carbon. Any likely consequence is sufficiently mitigated, with no reasonably foreseeable risk of release of spent carbon. Once the GAC is replaced it will be backwashed and the backwash water will be stored and settled in a backwash reclaim tank. Once settled, the decanted water will be pumped back into the WHTC.

The impact will be *Less Than Significant*.

Mitigation Measures: None are required

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

Response

The City of Atwater operates 8 wells within the city limits to provide a public water source for its customers. Water is pumped from the Merced Subbasin and regulated under the Sustainable Groundwater Management Act (SGMA) by the Merced Irrigation-Urban Groundwater Sustainability Agency (GSA).

The Sustainable Groundwater Management Act (SGMA), passed in 2014, requires the formation of local Groundwater Sustainability Agencies (GSAs) to oversee the development and implementation of Groundwater Sustainability Plans (GSPs), with the ultimate goal of achieving sustainable management of the State's groundwater basins. Merced SGMA adopted a GSP on December 9th, 2019.

The project will not conflict with any water quality control plan or sustainable groundwater management plan.

The project proposes to construct WHTC's and treatment pipelines to manage TCP levels in the public water system. In 2017, the Division of Drinking Water (DDW) established a drinking water MCL for

TCP. Construction and operation of the WHTC's as described in this document would manage the TCP level below the MCL. SWRCB will ultimately review and approve the treatment system, thereby ensuring water quality standards are met.

The project will have minimal impacts on water quality and water discharge during the construction phase. Normal operation will require backwash of the GAC vessels. The backwash operation of the GAC vessels are expected to have a negligible impact based on the backwash frequency, the total volume, and the characteristics of backwash water.

The project itself will not decrease groundwater supplies as it will not increase the pumping of groundwater. Under normal operation pumping rates will remain unchanged and will have no interference with groundwater recharge.

WHTC sites are relatively small, most approximately 0.25 acres. WHTC sites are in well established urban areas and the infill construction of the WHTC's will not change any drainage patterns or require alterations to streams or rivers. No WHTC sites are within a 100 year flood hazard zone. As such the potential for flooding on-site or off-site is minimal. No additional run-off is anticipated from the project sites and no impacts are anticipated to existing storm drain facilities. Implementation and compliance of the National Pollutant Discharge Elimination System (NPDES) permit will be required and the responsibility of the design build contractor.

The project does not anticipate any new residential, commercial, industrial, or agricultural construction that would create more demand for ground water pumping. The groundwater pumping demand of the City of Atwater would remain at the levels prior to operation of the project, therefore, the Project would have *No Impact*.

The impact will be *No Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
11. Land Use and Planning Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Response

The WHTC sites are all in existing urbanized areas that are developed. Existing developments surrounding WHTC include residential, commercial, and industrial uses. Public facilities are permitted uses within these zoning districts and land use designations. The proposed project sites are undeveloped infill properties that range in size but are generally 0.25 acres in size. The treatment pipeline routes would follow existing paved roadways. The project would not create any barriers that would divide any established communities in the City of Atwater. The proposed project consists of improvements to the existing public water system by managing TCP levels. The proposed WHTC project would be consistent with the current City of Atwater General Plan, Zoning and Municipal Code policies.

As required under the City of Atwater Municipal Code the project sites would require discretionary approval of the site plans. This discretionary approval would consist of making a determination that each site plan is consistent with the goals and policies of the General Plan and meet the requirements of the Municipal Code. Part of the discretionary process allows for public comment in front of the decision-making body making the approval.

Because the project would create no conflict with established policies or laws of the City of Atwater the result would be No Impact and require no mitigation.

The impact will be *No Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
12. Mineral Resources Would the project:				
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Response

California's Surface Mining and Reclamation Act of 1975 (SMARA) requires the State Geologist to classify land based on the known or inferred mineral resource potential of the land. The Division of Mines and Geology (DMG) Open-File Report 99-08 studied and evaluated the mineral resource potential of Merced County and found that for more than 50 years the primary mineral commodity produced was construction aggregates.

The City of Atwater has not identified in its General Plan, and is not known or inferred to be an area of significant mineral resources. The California Department of Conservation classifies mineral land resources by zones. Mineral land classification addresses the specific type of mineral deposits that are present in the project area. The Mineral Resource Zone (MRZ) map categorizes each area for classification and significance.

A search of the California Department of Conservation, SMARA Mineral Land Classification, Mineral Resources Zone (MRZ) Map indicates a classification of MRZ-1 for the project areas. MRZ-1 indicates: *"Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources."*

For the above noted reasons, the proposed project would not result in the loss of availability of a known mineral resource of value to the region or state. Furthermore as no active mining operations are on or near any project sites, implementation of the proposed project would not interfere with operations of any mining resources, thus, no significant impacts would result, and no mitigation would be required.

The impact will be *No Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
13. Noise Would the project:				
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?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Response

The proposed project includes construction of treatment centers, construction of treatment pipelines and connection to existing wells. All construction will take place within the City of Atwater and WHTCs will be operated within the City of Atwater.

The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. The FRA has determined that ground vibrations from construction activities do not often reach the levels that can damage structures, but they can be within the audible and perceptible ranges in buildings very close to construction sites.

California Government Code 65302(f) requires city general plans to include a noise element. The purpose of a noise element is to guide future development to enhance future land use compatibility. The current City of Atwater General Plan incorporates policies and goals related to noise. The reoccurring policy of the general plan is “*Protect residents from exposure to excessive noise*”. This policy is met through the City of Atwater Municipal Code Chapter 8.44 – Noise Control. Section 8.44.050 specifically regulates noise of construction sites, activities, and equipment. Ongoing operation of WHTC’s will produce ambient noise at minimal levels periodically during maintenance and backwash processes. WHTC sites do not incorporate pumping equipment and regular operation produces no noise.

Castle Airport is located northeast and adjacent to the City of Atwater. The airport is operated by Merced County and the County adopted the current Castle Airport Master Plan in December, 2011. The noise impacts analyzed as part of the master plan included anticipated cargo and passenger use of the airport. To date, no cargo or passenger uses have been established. Currently the airport handles mostly private air traffic with occasional use for military training. A noise model (Appendix B) was created as part of the Castle Airport Master Plan. The modeling was performed for the anticipated cargo use of the airport.

Since the proposed project will be required to follow the policies set forth in the City of Atwater General Plan and Chapter 8.44 of the City Municipal Code, this project will have a less than significant impact in regard to noise.

The impact will be *Less Than Significant Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
14. Population and Housing Would the project:				
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)?	☐	☐	☒	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Response

There is no new housing construction anticipated as part of the project. The project consists of improvements to the public water system to manage TCP levels. As the City can provide a healthier public water system, the demand for housing may increase and new residential construction may occur. The City of Atwater has experienced a drop in the number of building permits issued for new residential construction since 2008. This drop means that the city has not realized the projected housing numbers anticipated in previous analysis and has fallen behind its housing needs. No displacement of existing residents is anticipated with the project.

Because the City is not meeting its previously planned population and housing growth projections and the Project has no direct impact on creating housing or businesses, nor on displacing any residents, potential impacts are less than significant.

The impact will be *Less Than Significant Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
15. Public Services Would the project:				
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?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

Response

Public services provided to the project areas and vicinity include, fire, police, emergency medical, schools and parks. The city operates its own police and parks departments while the fire department is operated through a contract with Cal Fire. Emergency medical services are provided by the County of Merced through a contract with Riggs Ambulance Service. School services are provided for K-8 grades by Atwater Elementary School District and Merced City Schools District and 9-12 grades by Merced Union High School District. Demands on these types of public services is usually tied to an increase in population associated with a project. This project does not include any increases in population so would have no impact on public services due to an increase in population.

The project will include land acquisition for all but one site. The previously prepared assessment *City of Atwater 1,2,3,-TCP Mitigation Damage Assessment* identified locations for WHTC sites. The project description of this report cites this assessment and identifies alternative sites analyzed as part of this report. Some of the properties identified in the assessment and the alternative sites in this report require the acquisition of property currently used as park space in the City of Atwater and a portion of an existing school site operated by the Atwater Elementary School District (Figure 1.1).

Three properties have been identified for potential locations for WHTC 19. Alternative site A would require the purchase of a portion of the existing Power Line Park at the northeast corner of Channel Avenue and Lagoon Avenue and identified as Merced County Assessor's Parcel Number (APN) 156-140-034, comprised of +/-0.95 acres. Power Line Park consists of 2 parcels with a total area of approximately 1.72 acres. Power Line Park is currently in the City of Atwater's park inventory and is located within an existing Pacific Gas and Electric (PG&E) easement used for transmission power line facilities. The portion of the park to be purchased was dedicated to the City of Atwater as Lot "B" as shown on the Subdivision Final Map titled "*Shaffer Lakes East Unit 6*" of Merced County Official Records, Volume 44, page 13, Official Plats. The Portion of Power Line Park that would be purchased for the WHTC is

developed with approximately 2,250 sf of asphalt with the remaining area as lawn with 5 trees having a trunk diameter ranging from 6” to 10” at breast height.

One property was identified for the potential location for WHTC 16. The identified property is located on the east side of Granite Drive, north of Rushmore Drive in the southwest corner of the property owned by the Atwater Elementary School District known as Merced County APN 004-010-010. This parcel is currently partially undeveloped and used as open space associated with the Bellevue Elementary School with the southwest 2,400 sf of the parcel being the existing City of Atwater Well 16 site. The existing Well 16 site is developed with a masonry wall and chain link fence surrounding the well and equipment and the site is approximately 40’x60’. The construction and operation of the WHTC will require the acquisition of property immediately adjacent to the existing Well 16 site from the Atwater Elementary School District to expand the site to +/-11,250 sf or approximately 75’x150’.

As discussed above, the development of well sites 16 and 19 will require the purchase of property from the Atwater Elementary School District and the City of Atwater Parks Department. The sale and development of these properties will have a less than significant impact of public services. Furthermore, the project will improve the public water system with no increase in new housing construction or increase in demand of public services. Based on this the Project will have a *Less Than Significant Impact* on Public Services.

The impact will be *Less Than Significant Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
16. Recreation Would the project:				
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Response

There are 16 parks in the City of Atwater’s park system with the City maintaining all 16 for use by the public. As discussed in section 15, a portion of Power Line Park may be purchased for the placement of WHTC 19. If Power Line Park is chosen as the site for WHTC 19 this will remove this portion of Power Line Park from the Cities parks inventory. Parks and recreation facilities typically are impacted by an increase in use when new housing is part of a project. This project will provide the residents of Atwater with a healthier water system with no anticipated increase in new housing units. As such there would be a *Less Than Significant Impact*.

The impact will be *Less Than Significant Impact*.

Mitigation Measures: None are required

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

Response

WHTCs will be located on existing well and water infrastructure maintenance routes. This will allow the Public Works Department's Water Division to maintain the WHTCs with no increase in staffing or vehicle miles traveled. All facilities within public right of ways will be subsurface with no impacts to roadways, bicycle and pedestrian facilities and transit routes after construction.

No changes to existing access and/or circulation patterns would occur as a result of the Project; therefore, no impacts to public safety will result. The project does not conflict with any transportation policies of the General Plan, regional transit plans, or other policies, plans or programs supporting alternative transportation.

Part of the construction of the WHTC's is the construction of new treatment pipelines. These treatment pipelines will be constructed within existing City of Atwater right of ways. During construction activities some roadways may be impacted by road closures and detours. Temporary lane closures would reduce the capacity of roadways and could result in delays; however, the roadways impacted are mostly local residential roadways and the effects would be short-term. In anticipation of this project, the City of Atwater installed treatment pipelines as part of the previously constructed Winton Way Reconstruction Project. The installation of the treatment lines as part of the Winton Way Reconstruction Project will greatly reduce the closure of this major arterial roadway. The construction of the treatment pipelines should not impact any school sites, but the Atwater Elementary School District and Merced Union High school District will be notified of construction activities within ¼ mile of any school sites. Police, Fire and Emergency Services will be notified of all aspects of the project to minimize impacts and delays to services as well as receive weekly project updates and scheduling.

No impacts would occur under operation of the proposed project. During construction, the City of Atwater will require the contractor to prepare a construction traffic control plan for the proposed project. The following measures will be incorporated in the construction traffic control plan:

- Develop circulation and detour plans to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.
- To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.

- Install temporary traffic control devices as specified in the California Manual of Uniform Traffic Control Devices where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.
- Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.

The construction and operation of the WHTC's will have a *Less Than Significant Impact* on traffic and transportation.

The impact will be *Less Than Significant Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
18. Tribal Cultural Resources 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:				
a. 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), or	☐	☐	☐	☒
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 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 resource to a California Native American tribe.	☐	☐	☐	☒

Response

AB 52 requires Native American Tribes to notify local agencies of their desire to be notified of projects studied within the city's jurisdiction. No Native American Tribes have requested notification; however, 3 Native American Tribes were identified in a previous study. On April 24, 2020 the City of Atwater Planning Division sent notification of the proposed project to all California Native American tribal representatives that were previously notified. Consultation is ongoing and to date no responses have been received.

All WHTC sites have had some level of previous development ranging from agricultural, residential, and institutional uses. Sites have been regularly cleared for fire protection and conformance with the municipal code. All sites are surrounded by developed land used for residential, educational, commercial,

or industrial purposes. There are no resources in the project area that have been determined by the lead agency to be significant pursuant to the criteria set forth in Public Resources Code Section 5024.1.

Communication will continue and be ongoing with regional Native American Tribes and we would find *No Impact* related to this project.

The impact will be *No Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
19. Utilities and Service Systems Would the project:				
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?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
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 project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Response

The proposed Project will result in improving the public water system for the utility customers of Atwater. During normal operation no wastewater, electrical, natural gas or telecommunications facilities will be impacted by the project. During the construction of the project, minimal impacts to the water system and water quality are anticipated. Water quality and water discharge requirements will be subject to State and Local standards. Construction activities will meet State and Local regulation and require implementation of California Association of Stormwater Quality Agencies (CASQA) best management practices (BMP's) to prevent soil erosion and water contamination.

Ongoing operations will require replacement of GAC in the treatment vessels. Once the GAC is replaced it will be backwashed and the backwash water will be stored and settled in a backwash reclaim tank. Once settled, the decanted water will be pumped back into the WHTC and have no discharge requirements. Some backwash water will be discharged to the storm drainage system for percolation or evaporation.

Operation of the WHTC's will not require wastewater treatment and will have no impact to any City of Atwater's wastewater treatment facilities or plant. Solid waste will be generated from the change out of

bulk carbon from the GAC vessels. The exchange of clean virgin carbon for spent carbon is a closed loop process wherein the bulk carbon is hydraulically transferred through pressure hoses between the treatment vessels and the transfer trucks. The entire process of waste carbon management will be handled by an independent contractor under strict federal and state guidelines and licensing requirements

The project does not include any new residential, commercial, industrial, school, institutional or park developments and will not induce population growth creating a greater demand on utilities. The only anticipated impacts to utilities are improved water quality.

This project will have minimal impacts on the utilities, water quality and waste discharge requirements and comply with all federal, state, and local statutes and regulations, and therefore there will be a *Less Than Significant* impact.

The impact will be *less than significant*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
20. Wildfire If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Response

Since 2008, the City of Atwater has contracted with Cal Fire to provide fire protection services. The City also has a mutual aid agreement with the City of Merced that was established in 1993. The City of Atwater operates 2 fire stations: Station 41 at 699 Broadway Avenue and Station 42 at 2006 Avenue Two. Station 41 houses Engine 41 while Station 42 houses Ladder 42 and Engine 42. In 2017, the City updated the Municipal Service Review (MSR) and cited a response time of less than 7 minutes for 90 percent of responses.

Wildland fire threats are greatest in mountain and foothill areas, where steep slopes, volatile vegetation, and windy conditions increase fire risk. Characteristics of the Study Area is almost all flat urbanized land outside of areas classified as a very high fire hazard.

The acquisition of property for the development of the WHTC does not cause or increase the risk of a wildfire. The construction of the WHTC will be in developed areas with adequate infrastructure of utilities and roadways and carries a less than significant risk of wildfires.

The impact will be *No Impact*.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
21. Mandatory Findings of Significance Would the project:				
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?	☐	☐	☐	☒
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)?	☐	☐	☐	☒
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Response

As described in Biological Resources and Cultural Resources sections, the project would not substantially reduce habitat or otherwise have adverse effects on fish, wildlife or plants or eliminate important examples of California history or prehistory. The purpose of the project is to provide safe drinking water to the residents of the City of Atwater. To accomplish the goal of providing safe drinking water, the City will install WHTCs to treat the water and bring TCP levels below a 5ppt MCL. The project will not exacerbate or result in a considerable contribution to a potentially significant hydrology and water supply impact.

As described in the Noise section, the only potential impacts that are less than significant would be vibrations and noise from construction activities. These construction activities would be temporary and would be at a less than significant level and therefore would not result in any required mitigation measures.

The impact will be *Less Than Significant*.

Mitigation Measures: None are required

Figures

Figure 1.0: Existing Well Locations

Figure 1.1: Well Head Treatment Center Locations

Figure 2.0: Well 13, 14 & 17 Treatment Center Site and Pipe Routing

Figure 2.1: Well 15 GAC Treatment Center Site and Pipe Routing

Figure 2.2: Well 16 GAC Treatment Center Site

Figure 2.3: Well 18 GAC Treatment Center Site and Pipe Routing

Figure 2.4: Well 19 GAC Treatment Center Site and Pipe Routing

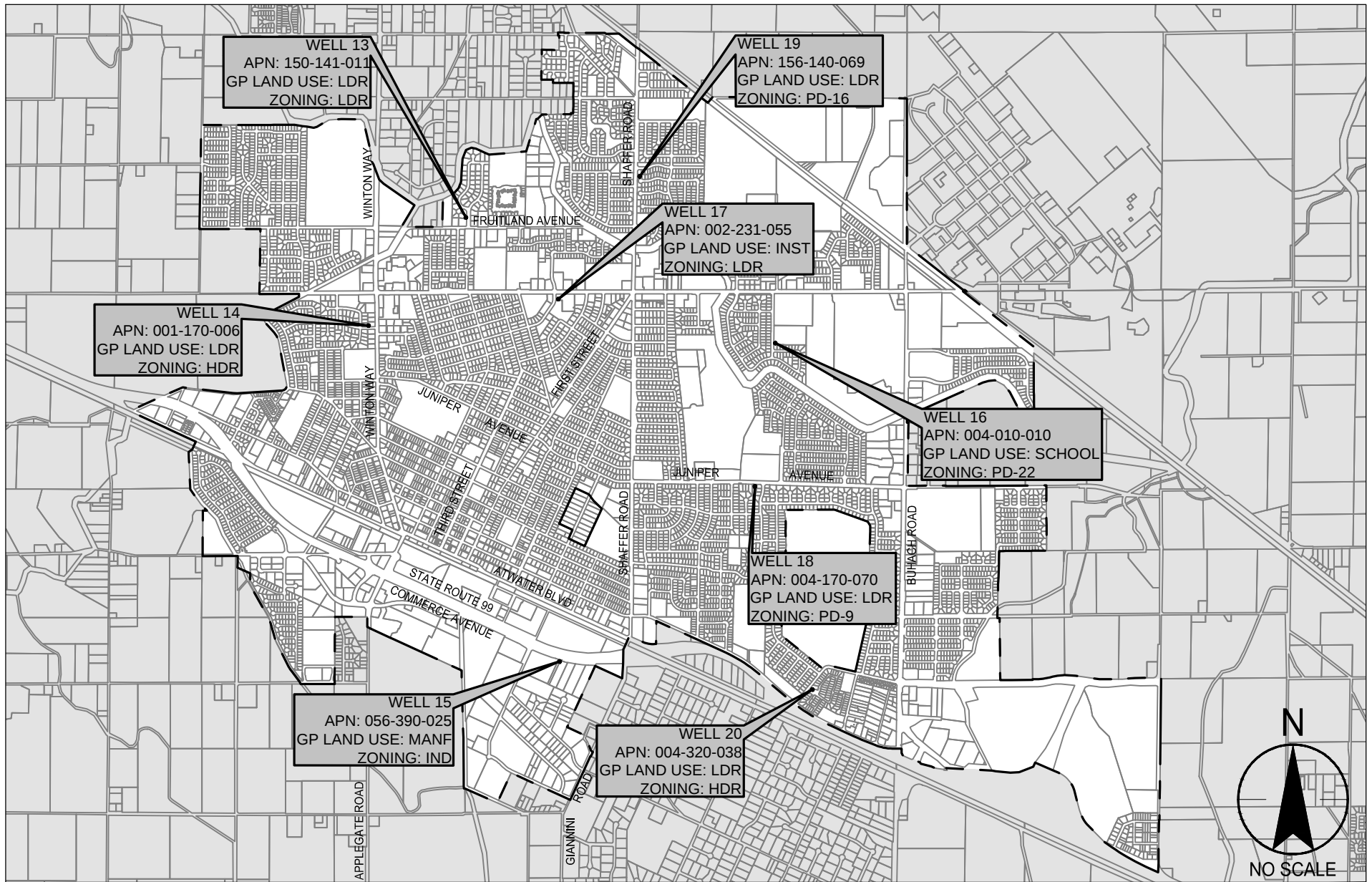
Appendices

Appendix A: Tribal Letters

Appendix B: 2035 Castle Airport Noise Contours

Appendix C: LSA Memorandum

Figures



430 10th Street
Modesto, CA 95354

Tel.: 209.568.4477
Fax: 209.568.4478

ORIGINAL SHEET - ANSI A

Client/Project

CITY OF ATWATER
TCP MITIGATION PROJECT

Title

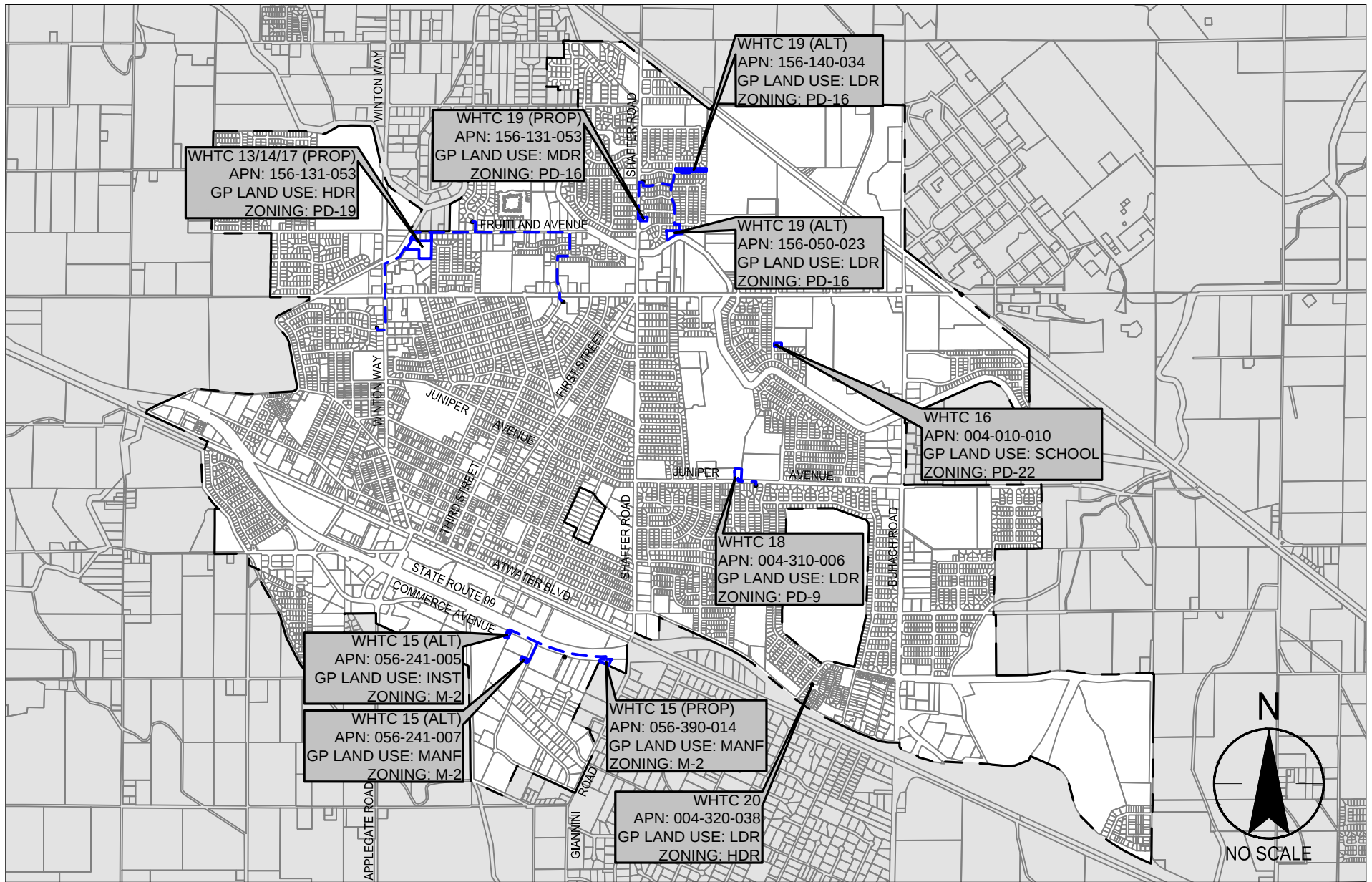
EXISTING CITY WELLS

Figure No.

1.0

JUNE, 2020
1093-0400

W:\10930400\docs\tcp_mitigation\figures\figure 1.0.dwg
2020-06-24 11:24 By: areed



430 10th Street Tel.: 209.568.4477
Modesto, CA 95354 Fax: 209.568.4478

ORIGINAL SHEET - ANSI A

Client/Project

CITY OF ATWATER
TCP MITIGATION PROJECT

Title

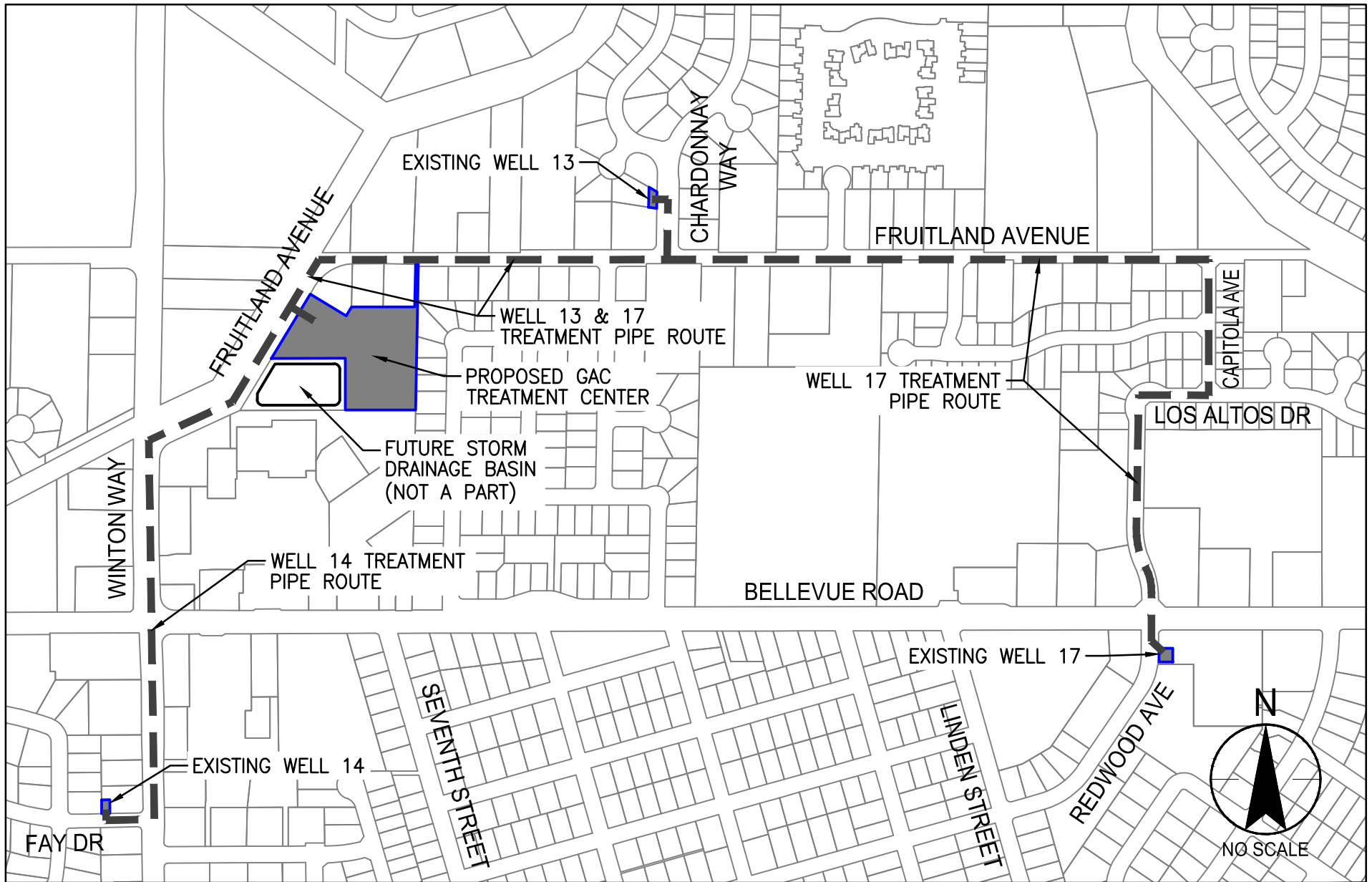
WELL HEAD TREATMENT CENTER LOCATION EXHIBIT

Figure No.

1.1

JUNE, 2020
1093-0400

W:\10930400\docs\tcp_mitigation\figures\figure 1.1.dwg
2020-06-24 08:35 By: areed



430 10th Street
Modesto, CA 95354

Tel.: 209.568.4477
Fax: 209.568.4478

Client/Project

CITY OF ATWATER
1,2,3-TCP MITIGATION PROJECT

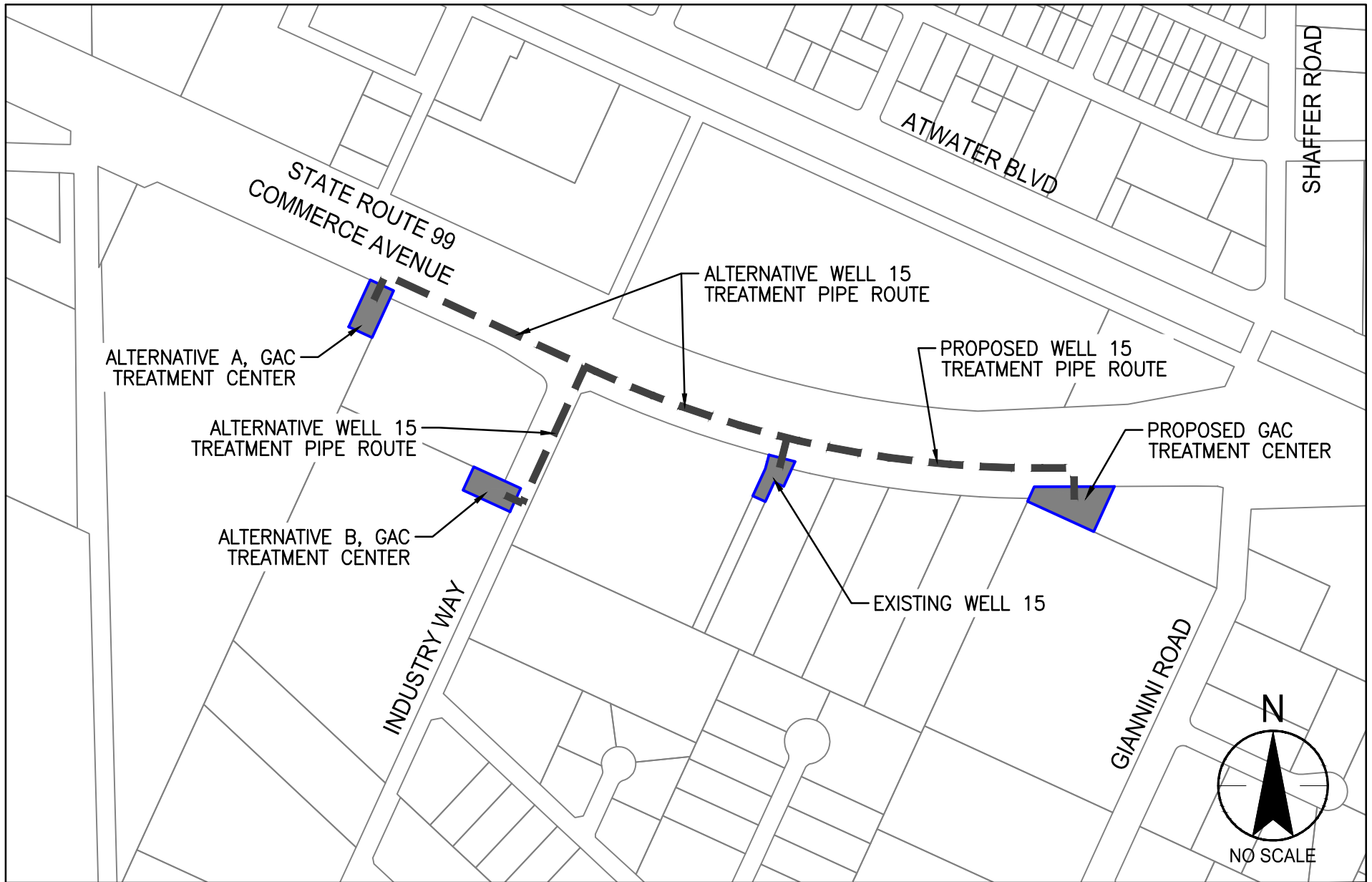
Title

WELL 13, 14 & 17 TREATMENT CENTER
SITE AND PIPE ROUTING EXHIBIT

Figure No.

2.0

MAY, 2020
1093-0400



430 10th Street Tel.: 209.568.4477
Modesto, CA 95354 Fax: 209.568.4478

Client/Project

CITY OF ATWATER
1,2,3-TCP MITIGATION PROJECT

Title

WELL 15 GAC TREATMENT CENTER SITE AND
PIPE ROUTING (PROPOSED & ALTERNATIVE)

Figure No.

2.1

MAY, 2020
1093-0400

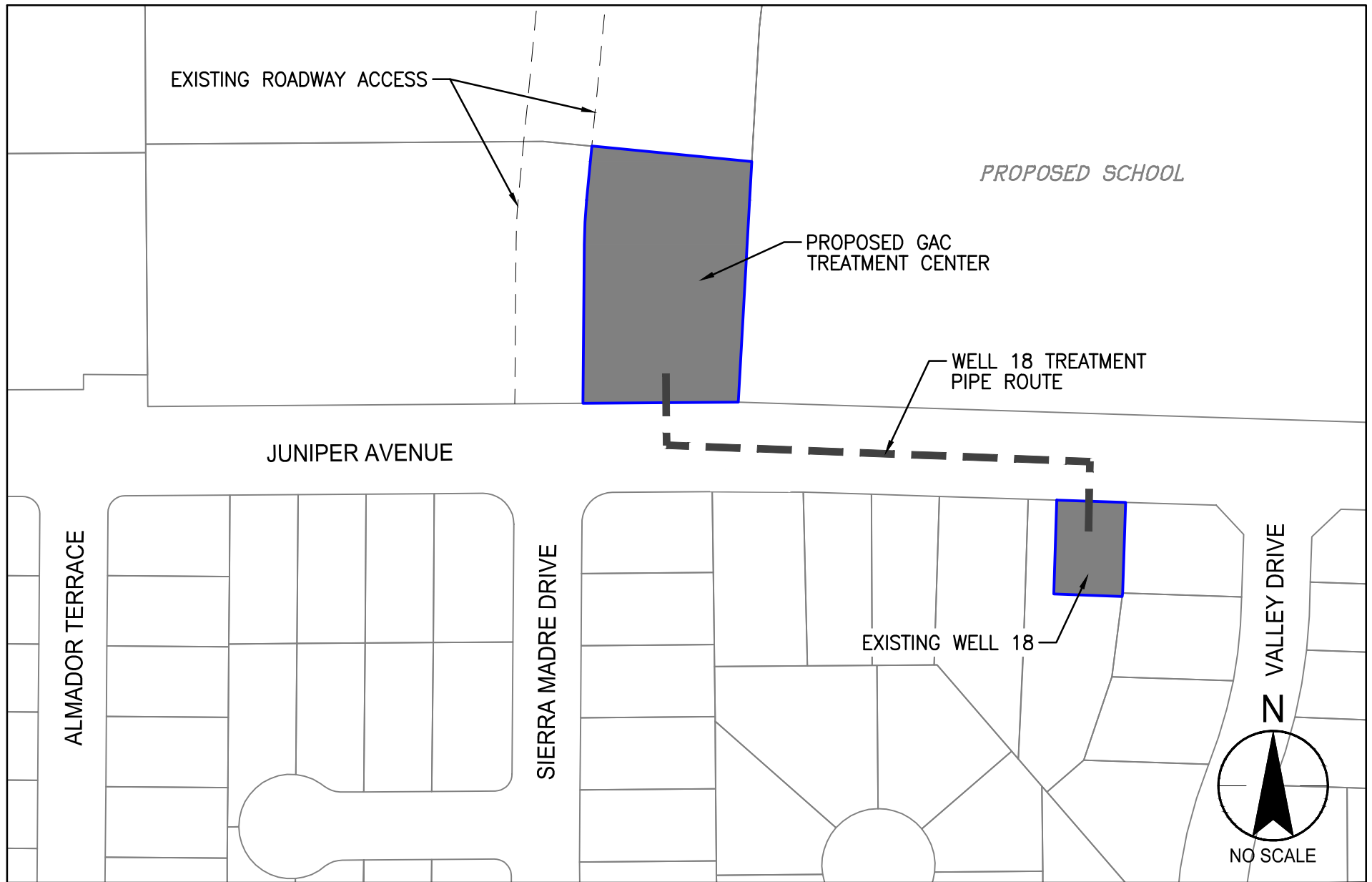


430 10th Street Tel.: 209.568.4477
Modesto, CA 95354 Fax: 209.568.4478

Client/Project
CITY OF ATWATER
1,2,3-TCP MITIGATION PROJECT
Title
WELL 16 GAC TREATMENT CENTER SITE

Figure No.
2.2

MAY, 2020
1093-0400



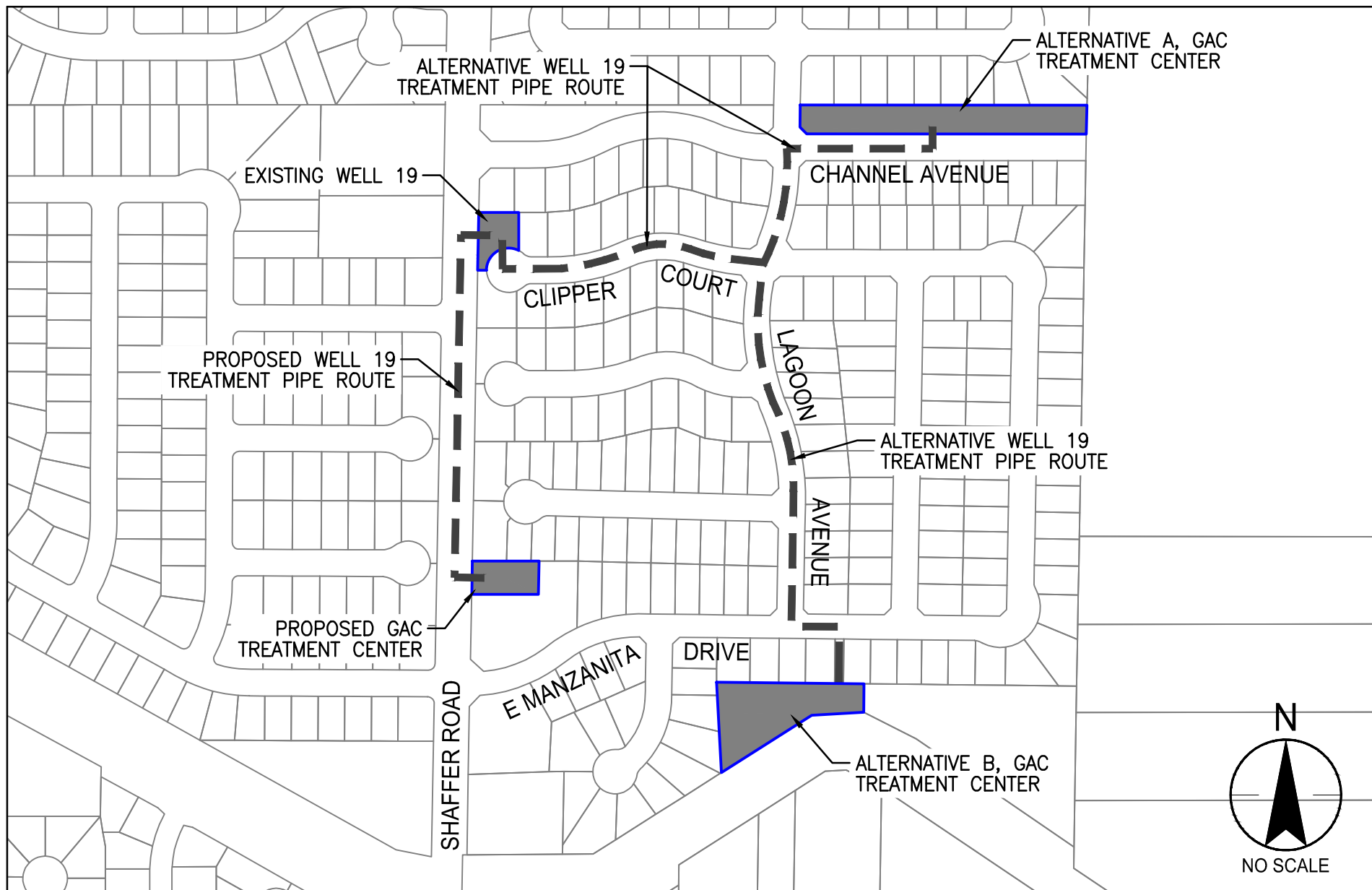
430 10th Street Tel.: 209.568.4477
Modesto, CA 95354 Fax: 209.568.4478

Client/Project
CITY OF ATWATER
1,2,3-TCP MITIGATION PROJECT

Title
WELL 18 GAC TREATMENT CENTER SITE

Figure No.
2.3

MAY, 2020
1093-0400



430 10th Street Tel.: 209.568.4477
Modesto, CA 95354 Fax: 209.568.4478

Client/Project

CITY OF ATWATER
1,2,3-TCP MITIGATION PROJECT

Title

WELL 19 GAC TREATMENT CENTER SITE AND
PIPE ROUTING (PROPOSED & ALTERNATIVES)

Figure No.

2.4

MAY, 2020

1093-0400

Appendices

Appendix A: Tribal Letters

City of Atwater



PLANNING DEPARTMENT
750 BELLEVUE ROAD
ATWATER, CA 95301
(209) 357-6367

April 23, 2020

North Valley Yokuts Tribe
Katherine Perez, Chairperson
PO Box 717
Linden, CA 95236

**RE: Native American Consultation, Pursuant to Assembly Bill 52 (AB52), Public Resources Codes
§21080.1, §21080.3.1 and §21080.3.2**

Dear Ms. Perez:

The City of Atwater (City) will undertake the following project: City of Atwater TCP Mitigation Project (Project). Below please find a description of the proposed Project, Maps showing the Project vicinity and the site boundary, as well as the name of our Project point of contact.

Project Description: The Project locations will vary throughout the incorporated City Limits, see attached map for locations. For Wellhead Treatment Center layout see the attached Typical Site Plan.

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the City. Should you have any comments or questions please contact the lead agency representative:

City of Atwater
Greg Thompson, Community Development Director
750 Bellevue Road
Atwater, CA 95301
209-357-6342

Thank you,

Greg Thompson, Community Development Director

City of Atwater



PLANNING DEPARTMENT
750 BELLEVUE ROAD
ATWATER, CA 95301
(209) 357-6367

April 23, 2020

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
PO Box 5272
Galt, CA 95632

**RE: Native American Consultation, Pursuant to Assembly Bill 52 (AB52), Public Resources Codes
§21080.1, §21080.3.1 and §21080.3.2**

Dear Mr. Lopez:

The City of Atwater (City) will undertake the following project: City of Atwater TCP Mitigation Project (Project). Below please find a description of the proposed Project, Maps showing the Project vicinity and the site boundary, as well as the name of our Project point of contact.

Project Description: The Project locations will vary throughout the incorporated City Limits, see attached map for locations. For Wellhead Treatment Center layout see the attached Typical Site Plan.

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the City. Should you have any comments or questions please contact the lead agency representative:

City of Atwater
Greg Thompson, Community Development Director
750 Bellevue Road
Atwater, CA 95301
209-357-6342

Thank you,

Greg Thompson, Community Development Director



PLANNING DEPARTMENT
750 BELLEVUE ROAD
ATWATER, CA 95301
(209) 357-6367

April 23, 2020

Southern Sierra Miwuk Nation
William Leonard, Chairperson
PO Box 186
Mariposa, CA 95338

RE: Native American Consultation, Pursuant to Assembly Bill 52 (AB52), Public Resources Codes §21080.1, §21080.3.1 and §21080.3.2

Dear Mr. Leonard:

The City of Atwater (City) will undertake the following project: City of Atwater TCP Mitigation Project (Project). Below please find a description of the proposed Project, Maps showing the Project vicinity and the site boundary, as well as the name of our Project point of contact.

Project Description: The Project locations will vary throughout the incorporated City Limits, see attached map for locations. For Wellhead Treatment Center layout see the attached Typical Site Plan.

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the City. Should you have any comments or questions please contact the lead agency representative:

City of Atwater
Greg Thompson, Community Development Director
750 Bellevue Road
Atwater, CA 95301
209-357-6342

Thank you,

A handwritten signature in blue ink, appearing to read "Greg Thompson", followed by a long horizontal flourish.

Greg Thompson, Community Development Director

Appendix B: 2035 Castle Airport Noise Contours

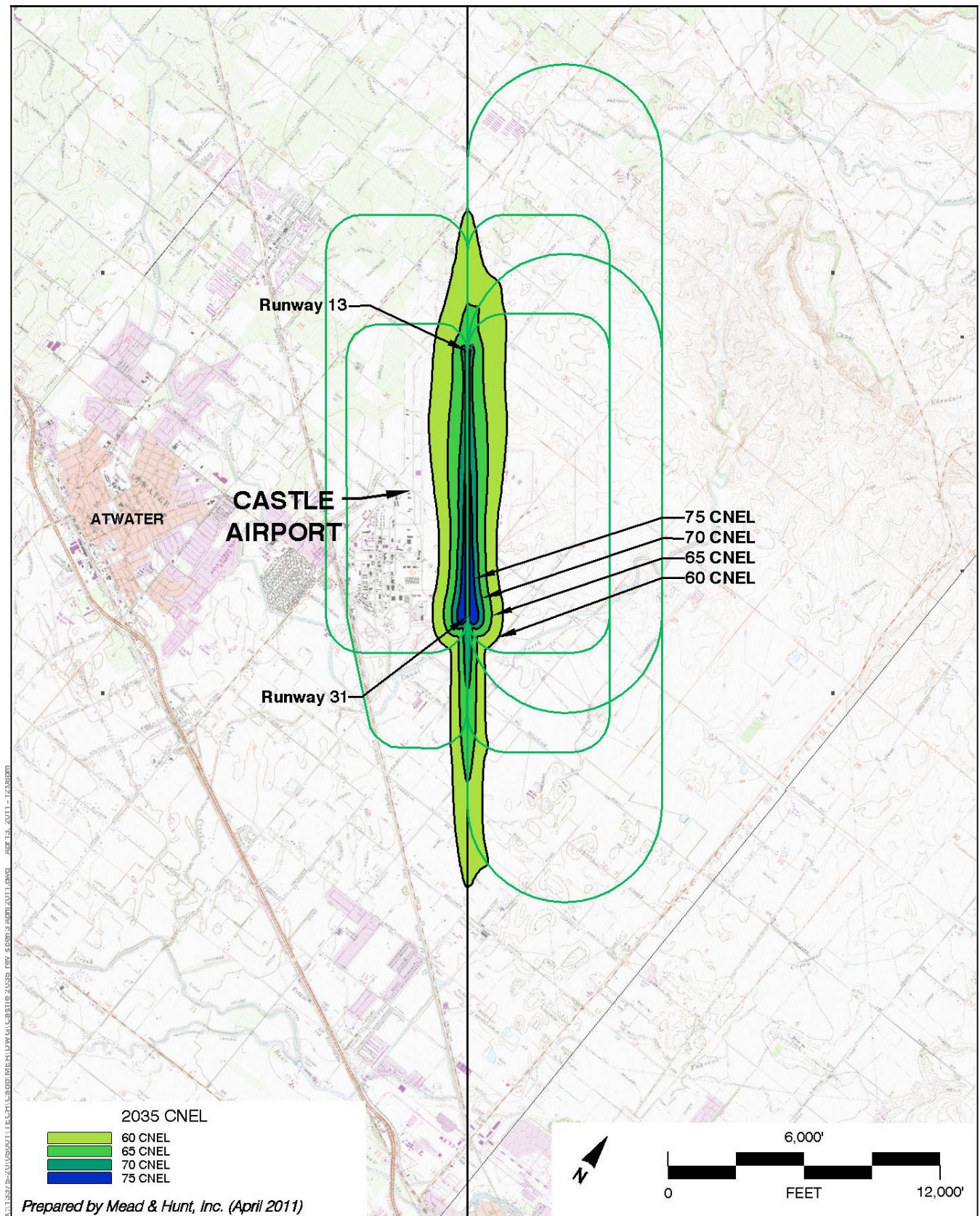


Figure D-1
2035 Castle Airport Noise Contours (CNEL)
 Scenario 3 – High Air Cargo

Appendix C: LSA Memorandum

MEMORANDUM

DATE: July 1, 2020

To: Greg Thompson, Community Development Department, City of Atwater

FROM: Amy Fischer, Principal

SUBJECT: Air Quality and Greenhouse Gas Analysis for the Wellhead Treatment Centers Project in the City of Atwater, CA

INTRODUCTION

This Air Quality and Greenhouse Gas Analysis for the proposed Wellhead Treatment Centers Project (project) in the City of Atwater (City) has been prepared using methods and assumptions recommended in the San Joaquin Valley Air Pollution Control District's (SJVAPCD) *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI).¹ This analysis includes a description of existing regulatory framework, an assessment of project construction and operation-period emissions, and an assessment of greenhouse gas (GHG) emissions. Measures to reduce or eliminate significant air quality impacts are identified, where appropriate.

Project Description

The City proposes to construct seven groundwater Wellhead Treatment Centers (WTCs) supporting eight individual operational water-source wells in the City. The City is tasked with protecting public health and provide a safe clean water source for residences. In that regard, the project proposed the installation of Granular Activated Carbon (GAC) treatment centers at Well: 13,14,15,16,17,18,19, and 20. The GAC absorption treatment will reduce the groundwater effluent maximum contaminant level (MCL) to below 5 parts per thousand (ppt). The wells have shown detection of 1,2-dibromo-3-chloropropane (DBCP), a harmful carcinogen compound, part of a family of harmful compounds known as trichloropropane (TCP), if consumed by humans. Each location would require the Wellhead Treatment Center to be constructed on, or near each operational project site. The eight wells are identified as Wells 13,14,15,16, 17,18, 19, and 20. Only Well 20 has adequate area for on-site installation of the TCP removal system. The remaining Wells (13 through 19) will require the purchase of additional property to accommodate the installations.

Each treatment plant site will be equipped with a backwash reclamation holding tanks. The tanks will be utilized once new carbon is introduced to each system during first startup and subsequent

¹ San Joaquin Valley Air Pollution Control District, 2015. *Guidance for Assessing and Mitigating Air Quality Impacts*. March. Website: www.valleyair.org/transportation/ceqa_idx.htm, accessed June 2020.

maintenance intervals. The properties identified previously for additional property acquisition, will also have associated pipeline construction to transport the water from the well to the treatment plants. Identified treatment plants constructed remotely will be equipped with chlorination systems to treat the Public Water Systems with TCP levels above 5 ppt. Each site will vary from ½ acre to 1 acre in total size. The zoning of each proposed project site varies between developed residential, commercial, and industrial within the City. The proposed property zoning designations are as follows: Wells 13 and 14 Planned Development (PD-19), Well 15 Heavy Industrial, Well 16 Planned Development (PD-22), Well 17 General Commercial, Well 18 Planned Development (PD-9), Well 19 Planned Development (PD-16), and Well 20 Planned Development (PD-9). The various project treatment plants would not be staffed, only on-site visitation for routine inspection and maintenance. Each project site will be setback from the streetscape, and shielded from view from the public in order to remain consistent with the current Land Use Designation and zoning requirements.

ENVIRONMENTAL SETTING

Air Quality Background

Air quality is primarily a function of both local climate, local sources of air pollution and regional pollution transport. The amount of a given pollutant in the atmosphere is determined by the amount of the pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain, and for photochemical pollutants, sunshine.

A region's topographic features have a direct correlation with air pollution flow and, therefore, are used to determine the boundary of air basins. The proposed project is located in the County of Merced, in the City of Atwater, within the jurisdiction of the SJVAPCD, which regulates air quality in the San Joaquin Valley Air Basin (SJVAB).

The SJVAB is comprised of approximately 25,000 square miles and covers all of seven counties including Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus and Tulare, and the western portion of an eighth, Kern. The SJVAB is defined by the Sierra Nevada mountains in the east (8,000 to 14,000 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi mountains in the south (6,000 to 8,000 feet in elevation). The valley is topographically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay. An aerial view of the SJVAB would simulate a "bowl" opening only to the north. These topographic features restrict air movement through and out of the basin.

Both the State of California (State) and the federal government have established health-based Ambient Air Quality Standards (AAQS) for six criteria air pollutants: carbon monoxide (CO), Ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and suspended particulate matter (PM_{2.5} and PM₁₀). The SJVAB is designated as non-attainment for O₃ and PM_{2.5} for federal standards and non-attainment for O₃, PM₁₀, and PM_{2.5} for State standards.

Air quality monitoring stations are located throughout the nation and maintained by the local air districts and State air quality regulating agencies. Data collected at permanent monitoring stations are used by the Environmental Protection Agency (USEPA) to identify regions as "attainment" or

“nonattainment” depending on whether the regions meet the requirements stated in the applicable National Air Quality Standards (NAAQS). Nonattainment areas are imposed with additional restrictions as required by the USEPA. In addition, different classifications of attainment, such as marginal, moderate, serious, severe, and extreme, are used to classify each air basin in the State on a pollutant-by-pollutant basis. The classifications are used as a foundation to create air quality management strategies to improve air quality and comply with the NAAQS. The SJVAB attainment statuses for each of the criteria pollutants for Merced County are listed in Table A².

Table A: SJVAB Air Quality Attainment Status for Merced County

Pollutant	State	Federal
O ₃ (1-hour)	Nonattainment/Severe	No Federal Regulation
O ₃ (8-hour)	Nonattainment	Nonattainment/Extreme
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment/Unclassified	Attainment
NO ₂	Attainment	Attainment/Unclassified
Lead	Attainment	Attainment/Unclassified
SO ₂	Attainment	Attainment/Unclassified
Sulfates	Attainment	No Federal Regulation
H ₂ S	Unclassified	No Federal Regulation

Source: Air Quality Standards and Area Designations (SJVAPCD).

CO = carbon monoxide
H₂S = Hydrogen Sulfide
NO₂ = nitrogen dioxide
O₃ = ozone

PM₁₀ = particulate matter less than 10 microns in size
PM_{2.5} = particulate matter less than 2.5 microns in size
SJVAB = San Joaquin Valley Air Basin
SO₂ = sulfur dioxide

O₃ levels, as measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by the SJVAPCD and other regional, State and federal agencies. The reduction of peak concentrations represents progress in improving public health; however the SJVAB still exceeds the State standard for 1-hour and 8-hour ozone levels. In addition, the SJVAB was designated as a nonattainment area for the federal 1997 8-hour ozone level in June 2004. The USEPA lowered the national 8-hour ozone standard from 0.80 to 0.75 parts per million (ppm) on May 27, 2008. To bring the San Joaquin Valley into attainment, the SJVAPCD adopted the 2016 Plan for the 2008 8-Hour O₃ Standard in June 2016 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion 8-hour O₃ standard³. The San Joaquin Valley is classified nonattainment for the 1-hour and 8-hour ozone standards at the State

² SJVAPCD. Air Quality Standards and Area Designations. Website: <https://www.valleyair.org/aqinfo/attainment.htm#California%20Standards>, accessed June 2020.

³ Federal Register. Clean Air Plans; 2008 8 –Hour Ozone Nonattainment Area Requirements; San Joaquin Valley, California. 2019. Website: <https://www.federalregister.gov/documents/2019/02/12/2019-01686/clean-air-plans-2008-8-hour-ozone-nonattainment-area-requirements-san-joaquin-valley-california>, accessed June 2020.

and federal level⁴. During the 2016-2018 time period, the Merced (385 S Coffee Ave) air monitoring station (the closest monitoring station to the project site approximately 10.6 miles southeast) recorded the following exceedances of the State and federal 1-hour and 8-hour ozone standards.⁵

- 28 exceedances of the federal 8-hour ozone standard in 2016, 16 in 2017, and 21 in 2018;
- 29 exceedances of the State 8-hour ozone standard in 2016, 17 in 2017, and 23 in 2018; and
- Two exceedances of the State 1-hour ozone standard in 2016, no exceedances in 2015, and 4 in 2018.

National and State standards have also been established for particulate matter with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}) over 24-hour and yearly averaging periods. PM_{2.5}, because of the small size of individual particles, can be especially harmful to human health. PM_{2.5} is emitted by common combustion sources such as cars, trucks, buses and power plants, in addition to ground-disturbing activities. The SJVAB is considered a nonattainment area for the PM_{2.5} standard at the State and federal levels. The following PM_{2.5} exceedances were recorded at the Merced (2334 M Street) air monitoring station:

- Two exceedances of the federal 24-hour PM_{2.5} standard in 2016, 6 in 2017, and 10 in 2018.

The SJVAB is classified as a PM₁₀ nonattainment area at the State level and was redesignated from serious nonattainment to attainment of the federal PM₁₀ standard in 2008. Because the SJVAB was re-designated from nonattainment to attainment, a PM₁₀ maintenance plan was adopted in 2007 and is required to be updated every ten years, last updated April 2017. The State annual PM₁₀ standard was exceeded 6 times in 2016, 12 times in 2017, and 10 times in 2018. No exceedances of the Federal 24-hour PM₁₀ standard were measured at the Merced (2334 M Street) monitoring station during the 2016-2018 time period.

No exceedances of the State or federal carbon monoxide (CO) standards have been recorded at any of the region's monitoring stations since 1991. The SJVAB is currently considered an attainment area for State and federal 8-hour and 1-hour CO standards.

Greenhouse Gas and Global Climate Change Background

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO₂)

⁴ San Joaquin Valley Air Pollution Control District Ambient Air Quality Standards & Valley Attainment Status. Website: <https://www.valleyair.org/aqinfo/attainment.htm#California%20Standards>, accessed June 2020.

⁵ California Air Resources Board. 2020. iADAM Air Quality Data Statistics. Website: www.arb.ca.gov/adam, accessed June 2020.

- Methane (CH₄)
- Nitrous Oxide (N₂O)
- Nitrogen Trifluoride (NF₃)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO₂, CH₄, and N₂O, some gases, like NF₃, HFCs, PFCs, and SF₆ are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to CO₂, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂e).

Regulatory Framework

San Joaquin Valley Air Pollution Control District

The SJVAPCD has specific air quality-related planning documents, rules, and regulations. This section summarizes the local planning documents and regulations that may be applicable to the proposed project as administered by the SJVAPCD with California Air Resources Board (CARB) oversight.

Rule 2280—Portable Equipment Registration. Portable equipment used at project sites for less than six consecutive months must be registered with the SJVAPCD. The SJVAPCD will issue the registrations 30 days after receipt of the application.⁶

Rule 4201 and Rule 4204—Particulate Matter Concentration and Emission Rates. Rule 4201 and Rule 4202 apply to operations that emit or may emit dust, fumes, or total suspended particulate matter.⁷

Rule 4625—Conditional Approval. Rule 4625 sets a limit on VOC emissions from wastewater separators by requiring vapor loss control devices, recordkeeping, inspection, and test methods⁸.

Rule 8011—General Requirements: Fugitive Dust Emission Sources. Fugitive dust regulations are applicable to outdoor fugitive dust sources. Operations, including construction operations, must control fugitive dust emissions in accordance with SJVAPCD Regulation VIII. According to Rule 8011, the SJVAPCD requires the implementation of control measures for fugitive dust emission sources. For projects in which construction-related activities would disturb equal to or greater than 1 acre of surface area, the SJVAPCD recommends that demonstration of receipt of an SJVAPCD-approved Dust Control Plan or Construction Notification Form, before issuance of the first grading permit, be made a condition of approval.

Guidance for Assessing and Mitigating Air Quality Impacts. The SJVAPCD prepared the GAMAQI to assist lead agencies and project applicants in evaluating the potential air quality impacts of projects in the SJVAB. The GAMAQI provides SJVAPCD-recommended procedures for evaluating potential air quality impacts during the CEQA environmental review process. The GAMAQI provides guidance on evaluating short-term (construction) and long-term (operational) air emissions. The most recent version of the GAMAQI, adopted March 19, 2015, was used in this evaluation. It contains guidance on the following:

- Criteria and thresholds for determining whether a project may have a significant adverse air quality impact;
- Specific procedures and modeling protocols for quantifying and analyzing air quality impacts;
- Methods to mitigate air quality impacts; and
- Information for use in air quality assessments and environmental documents, including air quality, regulatory setting, climate, and topography data.

⁶ San Joaquin Valley Air Pollution Control District, Rule 2280 Portable Equipment Registration. Amended December 20, 2018.

⁷ San Joaquin Valley Air Pollution Control District, 1992. Rule 4202 Particulate Matter – Emission Rate. Amended December 10, 2013.

⁸ San Joaquin Valley Air Pollution Control District, 2011. Rule 4625 Wastewater Separators. Website: <https://www.valleyair.org/rules/currnrules/R4625FinalRule.pdf>. Amended December 15, 2011.

THRESHOLDS OF SIGNIFICANCE

The State *CEQA Guidelines* indicate that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under applicable federal or state ambient air quality standards (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

A threshold of significance is defined by the SJVAPCD in its GAMAQI⁹ as an identifiable quantitative, qualitative, or performance level of a particular environmental effect. Non-compliance with a threshold of significance means the effect will normally be determined to be significant. Compliance with a threshold of significance means the effect normally will be determined to be less than significant. The SJVAPCD has established thresholds of significance for criteria pollutant emissions generated during construction and operation of projects as shown in Table B below.

Table B: SJVAPCD Construction and Operation Thresholds of Significance (Tons/Year)

	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Construction Thresholds	100	10	10	27	15	15
Operation Thresholds	100	10	10	27	15	15

Source: SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. 2015.

CO = carbon monoxide

Tons/Year = Tons per year

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROG = Reactive organic compounds

SJVAPCD = San Joaquin Valley Air Pollution Control District

SO_x = sulfur oxides

The emissions thresholds in the SJVAPCD GAMAQI were established based on the attainment status of the air basin in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

⁹ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. 2015. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>, accessed June 2020.

The State *CEQA Guidelines* indicate that a project would normally have a significant adverse greenhouse gas emission impact if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reduction the emissions of greenhouse gases.

IMPACTS AND MITIGATION MEASURES

The proposed project would release emissions over the short term as a result of construction activities, and over the long term from traffic generation and operation of the project. Emissions would include criteria air pollutants and GHG emissions. The sections below describe the proposed project's consistency with applicable air quality plans, estimated project emissions, and the significance of impacts with respect to SJVAPCD thresholds.

Air Quality Impacts

Consistency with Applicable Air Quality Plans

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the San Joaquin Valley into attainment, the SJVAPCD has developed the 2013 Plan for the Revoked 1-Hour Ozone Standard (Ozone Plan), adopted on September 19, 2013.¹⁰ The SJVAPCD also adopted the 2016 Plan for the 2008 8-Hour Ozone Standard in June 2016 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.¹¹

To assure the SJVAB's continued attainment of the USEPA PM₁₀ standard, the SJVAPCD adopted the 2007 PM₁₀ Maintenance Plan in September 2007.¹² SJVAPCD Regulation VIII (Fugitive PM₁₀ Prohibitions) is designed to reduce PM₁₀ emissions generated by human activity. The SJVAPCD adopted the 2015 Plan for the 1997 PM_{2.5} Standard in April 2015 to address the USEPA annual PM_{2.5} standard of 15 µg/m³ and 24-hour PM_{2.5} standard of 65 µg/m³.¹³

¹⁰ San Joaquin Valley Air Pollution Control District, 2013. *2013 Plan for the Revoked 1-Hour Ozone Standard*. September. Website: www.valleyair.org/Air_Quality_Plans/Ozone-OneHourPlan-2013.htm, accessed June 2020.

¹¹ San Joaquin Valley Air Pollution Control District, 2016. *2016 Plan for the 2008 8-Hour Ozone Standard*. June. Website: www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm, accessed June 2020.

¹² San Joaquin Valley Air Pollution Control District, 2007. *2007 PM₁₀ Maintenance Plan and Request for Redesignation*. Website: www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf, accessed June 2020.

¹³ San Joaquin Valley Air Pollution Control District, 2015. *2015 Plan for the 1997 PM_{2.5} Standard*. April. Website: www.valleyair.org/Air_Quality_Plans/PM25Plans2015.htm, accessed June 2020.

CEQA requires that certain proposed projects be analyzed for consistency with the applicable air quality plan. For a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant impact on air quality. In addition, emission reductions achieved through implementation of offset requirements are a major component of the SJVAPCD air quality plans. As discussed below, construction of the proposed project would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance. Implementation of SJVAPCD Regulation VIII would further reduce construction dust impacts. Operational emissions associated with the proposed project would also not exceed SJVAPCD established significance thresholds for CO, NO_x, ROG, SO_x, PM₁₀, or PM_{2.5} emissions. Therefore, the proposed project would not conflict with or obstruct implementation of SJVAPCD air quality plans.

Short-Term Construction Emissions

Construction activities can generate a substantial amount of air pollution, and in some cases can represent the largest air quality impact associated with a project. While construction activities are considered temporary, the short-term impacts can still contribute to exceedances of air quality standards. Construction activities include site preparation, grading, building construction, paving, and architectural coating. The emissions generated from these common construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel and gasoline powered equipment, portable auxiliary equipment, and worker commute trips.

The California Emissions Estimator Model (CalEEMod Version 2016.3.2), was used to estimate construction emissions for the proposed project. Construction equipment was estimated using CalEEMod default values. For purposes of this CalEEMod analysis, the construction schedule for all improvements was assumed to be approximately 12 months. Attachment A contains CalEEMod output worksheets. Results, summarized in Table C, were compared to SJVAPCD thresholds of significance for construction impacts.

Table C: Project Construction Emissions (Tons/Year)

	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Project Construction Emissions	2.2	2.4	1.0	<0.01	0.3	0.2
SJVAPCD Significance Threshold	100	10	10	27	15	15
Exceed Threshold?	No	No	No	No	No	No

Source: Compiled by LSA Associates, Inc., (June 2020).

CO = carbon monoxide

Tons/Year = Tons per year

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROG = reactive organic compounds

SJVAPCD = San Joaquin Valley Air Pollution Control District

SO_x = sulfur oxides

In addition to the construction period thresholds of significance, the SJVAPCD has implemented Regulation VIII measures for dust control during construction. These control measures are intended to reduce the amount of PM₁₀ emissions during the construction period. Implementation of the

following fugitive dust control measures would ensure that the proposed project complies with Regulation VIII and further reduces the short-term construction period air quality impacts.

Fugitive Dust Control Measures: Consistent with SJVAPCD Regulation VIII (Fugitive PM₁₀ Prohibitions), the following controls are required to be included as specifications for the proposed project and implemented at the construction site:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.

As shown in Table C, the short-term construction emissions associated with the proposed project would be well below SJVAPCD established significance thresholds. Therefore, construction of the proposed project would not result in a violation of air quality standards.

Long-Term Operational Emissions

Long-term emissions associated with a project typically include mobile source emissions that would result from project related vehicle trips. Other long-term sources can include stationary and area source emissions from the consumption of natural gas and electricity, landscape equipment, and use of consumer products. Long-term air pollutant emissions would affect the entire SJVAB.

Long-term operation emissions associated with the proposed project would be negligible as the water treatment sites are on existing maintenance routes for public works staff. Employee trips would be consistent with existing conditions. The project is also not expected to result in other stationary or area source emissions once operational.

As such, the long-term operational emissions associated with the proposed project would not exceed SJVAPCD established significance thresholds for CO, NO_x, ROG, SO_x, PM₁₀, or PM_{2.5} emissions. Therefore, the proposed project would not result in a violation of air quality standards.

Cumulative Impacts

CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. Therefore, if annual emissions of construction- or operational-related criteria air pollutants exceed any applicable threshold established by the SJVAPCD, the proposed project would result in a cumulatively significant impact. As discussed above, the proposed project's construction emissions of criteria pollutants are estimated to be well below the emissions threshold established for the region. Operational emissions associated with the proposed project would also not exceed SJVAPCD established significance thresholds for CO, ROG, NO_x, SO_x, PM₁₀, or PM_{2.5} emissions.

Sensitive Receptors

Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units. The seven project sites are a mixture of zoning types, such as, residential, commercial, and industrial. The existing Wellhead 19, has the closest sensitive receptor to any project site. The single-family residence is located approximately 15 feet east of Wellhead 19. Construction activities associated with the proposed projects sites would generate airborne particulates and fugitive dust, as well as a small quantity of pollutants associated with the use of construction equipment (e.g., diesel-fueled vehicles and equipment) on a short-term basis. However, construction contractors would be required to implement measures to minimize emissions by following SJVAPCD Regulation VIII, as described above. Project construction emissions would be well below SJVAPCD significance thresholds. Therefore, the project is not expected to result in substantial pollutant concentrations that would affect sensitive receptors.

Objectionable Odors

The proposed project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time near the project site. However, they would be localized and are not likely to adversely affect people off-site by resulting in confirmed odor complaints. Additionally, once operational the proposed project would not include any sources of significant odors that could cause complaints from surrounding uses.

Greenhouse Gas Impacts

This section discusses the proposed project's potential impacts related to the release of GHG emissions for both construction and project operation.

Construction Greenhouse Gas Emissions

Construction activities, such as site preparation, site grading, on-site heavy-duty construction vehicles, equipment hauling materials to and from the project site, and motor vehicles transporting the construction crew would produce combustion emissions from various sources. During construction of the proposed project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Construction GHG emissions associated with the proposed project were estimated using CalEEMod (Version 2016.3.2). Attachment A contains CalEEMod output worksheets. Based on the CalEEMod results, construction of the proposed project would generate approximately 359 metric tons (MT) of Carbon Dioxide Equivalent (CO₂e). The SJVAPCD does not recommend assessing the significance of construction GHG emissions because these emissions would be temporary.

Operational Greenhouse Gas Emissions

Long-term operation of the proposed project is not expected to generate substantial GHG emissions from mobile sources and indirect emissions from sources related to energy consumption. Each site's treatment plant would require some energy use that would result in negligible emissions and vehicle trips are not expected to increase with implementation of the project. The additional treatment facilities will not require on-site employees nor require additional maintenance generated vehicle trips from existing routes. Therefore, once operational, the project would not result in the generation of substantial GHG emissions. As such, operation of the project would not have a significant impact on the environment and project-related impacts would be less than significant.

Consistency with Applicable Plans

The City of Atwater does not have an adopted Climate Action Plan or GHG Reduction Plan. Therefore, the following discussion evaluates the proposed project according to the goals of Assembly Bill (AB) 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197.

AB 32 is aimed at reducing GHG emissions to 1990 levels by 2020. AB 32 requires the California Air Resource Board (CARB) to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The AB 32 Scoping Plan has a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

Executive Order Executive Order B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,¹⁴ to reflect the 2030 target set by Executive Order B-30-15 and codified by Senate Bill (SB) 32. SB 32 affirms the importance of addressing climate change by codifying into statute the

¹⁴ California Air Resources Board, 2017. *California's 2017 Climate Change Scoping Plan*. November.

GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

As identified above, the AB 32 Scoping Plan contains GHG reduction measures that work towards reducing GHG emissions, consistent with the targets set by AB 32, Executive Order B-30-15 and codified by SB 32 and AB 197. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. Energy usage on the project sites during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Therefore, the proposed project would not conflict with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. The purpose of the project is to install water treatment to meet the water quality objectives for treating the City's water supply. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. In addition, as discussed above, employee trips would continue on the same routes for maintenance and total miles traveled would remain the same with implementation of the proposed project; therefore, the project would not result in additional vehicle trips and would not conflict with reduction targets for passenger vehicles. Therefore, the proposed project would not conflict with policies and regulations that have been adopted for the purpose of reducing GHG from transportation sources.

The proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197 and would be consistent with applicable state plans and programs designed to reduce GHG emissions. Therefore, the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs and impacts would be less than significant.

CONCLUSION

Based on the analysis presented above, construction of the proposed project would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance. Implementation of SJVAPCD Regulation VIII would further reduce construction dust impacts. As discussed above, the proposed project's construction emissions of criteria pollutants are estimated to be well below the emissions threshold established for the region. Operational emissions associated with the proposed project would not exceed SJVAPCD established significance thresholds for CO, NO_x, ROG, SO_x, PM₁₀, or PM_{2.5} emissions. The proposed project would not result in a cumulatively considerable contribution to regional air quality impacts. The proposed project is not expected to produce significant emissions that would affect nearby sensitive receptors. The proposed project would also not result in objectionable odors affecting a substantial number of people. GHG emissions released during construction and operation of the project are estimated to be lower than significance thresholds, and would not be cumulatively considerable. The proposed project would be consistent with the goals of AB 32 and other State plans to reduce GHG emissions.

Attachment A: CalEEMod Model Output

ATTACHMENT A

CALEEMOD OUTPUT WORKSHEETS

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

Wellhead Treatment Centers

San Joaquin Valley Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	100.00	1000sqft	7.00	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

Project Characteristics -

Land Use - Total of 7 Wellhead Treatment Centers will be installed for 8 Wellheads in the City of Atwater. Each site will range from 1/2 acre to 1 acre, a maximum 7 acres was used.

Construction Phase - Estimated construction schedule. Construction phase schedule reduced from 230 day to 190 days total days.

Vehicle Trips - No on-site employees during operation. Net average daily trips will not be increased as a result of the project.

Energy Use - No natural gas useage on site.

Water And Wastewater - No indoor water usage will be associated with the proposed project.

Solid Waste - No solid waste associated with the operational project.

Construction Off-road Equipment Mitigation - Fugitive dust emissions would be controlled by watering on-site at least 2 times daily during construction.

Area Mitigation -

Consumer Products -

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	55	61
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	55	61
tblConstructionPhase	NumDays	230.00	190.00
tblConstructionPhase	PhaseEndDate	2/23/2022	12/30/2021
tblConstructionPhase	PhaseEndDate	12/29/2021	11/4/2021
tblConstructionPhase	PhaseEndDate	2/10/2021	2/11/2021
tblConstructionPhase	PhaseEndDate	1/26/2022	12/2/2021
tblConstructionPhase	PhaseEndDate	1/13/2021	1/14/2021
tblConstructionPhase	PhaseStartDate	1/27/2022	12/3/2021
tblConstructionPhase	PhaseStartDate	2/11/2021	2/12/2021
tblConstructionPhase	PhaseStartDate	1/14/2021	1/15/2021
tblConstructionPhase	PhaseStartDate	12/30/2021	11/5/2021
tblConstructionPhase	PhaseStartDate	12/31/2020	1/1/2021
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24NG	17.03	0.00
tblLandUse	LotAcreage	2.30	7.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	124.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	23,125,000.00	0.00

2.0 Emissions Summary

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.9552	2.4293	2.1522	4.0700e-003	0.2016	0.1213	0.3229	0.0957	0.1136	0.2093	0.0000	356.9720	356.9720	0.0775	0.0000	358.9094
Maximum	0.9552	2.4293	2.1522	4.0700e-003	0.2016	0.1213	0.3229	0.0957	0.1136	0.2093	0.0000	356.9720	356.9720	0.0775	0.0000	358.9094

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.9552	2.4293	2.1522	4.0700e-003	0.1065	0.1213	0.2278	0.0449	0.1136	0.1584	0.0000	356.9717	356.9717	0.0775	0.0000	358.9091
Maximum	0.9552	2.4293	2.1522	4.0700e-003	0.1065	0.1213	0.2278	0.0449	0.1136	0.1584	0.0000	356.9717	356.9717	0.0775	0.0000	358.9091

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	47.16	0.00	29.44	53.10	0.00	24.29	0.00	0.00	0.00	0.00	0.00	0.00

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-31-2020	3-30-2021	0.8537	0.8537
2	3-31-2021	6-29-2021	0.6959	0.6959
3	6-30-2021	9-29-2021	0.7035	0.7035
		Highest	0.8537	0.8537

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4602	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	256.5839	256.5839	0.0116	2.4000e-003	257.5893
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4602	1.0000e-005	9.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	256.5857	256.5857	0.0116	2.4000e-003	257.5912

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4602	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	256.5839	256.5839	0.0116	2.4000e-003	257.5893
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4602	1.0000e-005	9.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	256.5857	256.5857	0.0116	2.4000e-003	257.5912

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/15/2021	2/11/2021	5	20	
3	Building Construction	Building Construction	2/12/2021	11/4/2021	5	190	
4	Paving	Paving	11/5/2021	12/2/2021	5	20	
5	Architectural Coating	Architectural Coating	12/3/2021	12/30/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 0
(Architectural Coating – sqft)

OffRoad Equipment

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	42.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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Water Exposed Area

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	0.0194	0.2025	0.1058	1.9000e-004	0.0903	0.0102	0.1006	0.0497	9.4000e-003	0.0591	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6237	0.6237	2.0000e-005	0.0000	0.6241
Total	3.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6237	0.6237	2.0000e-005	0.0000	0.6241

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3.2 Site Preparation - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	0.0194	0.2025	0.1058	1.9000e-004	0.0352	0.0102	0.0455	0.0194	9.4000e-003	0.0288	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6237	0.6237	2.0000e-005	0.0000	0.6241
Total	3.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6237	0.6237	2.0000e-005	0.0000	0.6241

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3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644
Total	0.0229	0.2474	0.1586	3.0000e-004	0.0655	0.0116	0.0771	0.0337	0.0107	0.0443	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402
Total	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402

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3.3 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0256	0.0000	0.0256	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643
Total	0.0229	0.2474	0.1586	3.0000e-004	0.0256	0.0116	0.0372	0.0131	0.0107	0.0238	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402
Total	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402

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3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1806	1.6561	1.5746	2.5600e-003		0.0911	0.0911		0.0856	0.0856	0.0000	220.0554	220.0554	0.0531	0.0000	221.3827
Total	0.1806	1.6561	1.5746	2.5600e-003		0.0911	0.0911		0.0856	0.0856	0.0000	220.0554	220.0554	0.0531	0.0000	221.3827

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9000e-003	0.1676	0.0306	4.3000e-004	0.0101	4.7000e-004	0.0106	2.9100e-003	4.5000e-004	3.3600e-003	0.0000	40.6617	40.6617	3.1000e-003	0.0000	40.7393
Worker	0.0155	0.0102	0.1055	3.1000e-004	0.0319	2.2000e-004	0.0321	8.4800e-003	2.0000e-004	8.6800e-003	0.0000	27.6497	27.6497	7.3000e-004	0.0000	27.6679
Total	0.0204	0.1778	0.1361	7.4000e-004	0.0420	6.9000e-004	0.0427	0.0114	6.5000e-004	0.0120	0.0000	68.3113	68.3113	3.8300e-003	0.0000	68.4072

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3.4 Building Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1806	1.6561	1.5746	2.5600e-003		0.0911	0.0911		0.0856	0.0856	0.0000	220.0552	220.0552	0.0531	0.0000	221.3824
Total	0.1806	1.6561	1.5746	2.5600e-003		0.0911	0.0911		0.0856	0.0856	0.0000	220.0552	220.0552	0.0531	0.0000	221.3824

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9000e-003	0.1676	0.0306	4.3000e-004	0.0101	4.7000e-004	0.0106	2.9100e-003	4.5000e-004	3.3600e-003	0.0000	40.6617	40.6617	3.1000e-003	0.0000	40.7393
Worker	0.0155	0.0102	0.1055	3.1000e-004	0.0319	2.2000e-004	0.0321	8.4800e-003	2.0000e-004	8.6800e-003	0.0000	27.6497	27.6497	7.3000e-004	0.0000	27.6679
Total	0.0204	0.1778	0.1361	7.4000e-004	0.0420	6.9000e-004	0.0427	0.0114	6.5000e-004	0.0120	0.0000	68.3113	68.3113	3.8300e-003	0.0000	68.4072

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3.5 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402
Total	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402

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3.5 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402
Total	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402

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3.6 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6953					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	0.6974	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.0000e-004	2.1200e-003	1.0000e-005	6.4000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5544	0.5544	1.0000e-005	0.0000	0.5548
Total	3.1000e-004	2.0000e-004	2.1200e-003	1.0000e-005	6.4000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5544	0.5544	1.0000e-005	0.0000	0.5548

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3.6 Architectural Coating - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6953					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	0.6974	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.0000e-004	2.1200e-003	1.0000e-005	6.4000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5544	0.5544	1.0000e-005	0.0000	0.5548
Total	3.1000e-004	2.0000e-004	2.1200e-003	1.0000e-005	6.4000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5544	0.5544	1.0000e-005	0.0000	0.5548

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.506092	0.032602	0.169295	0.124521	0.019914	0.005374	0.021664	0.110051	0.001797	0.001623	0.005307	0.000969	0.000792

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Mitigated

[illegible]

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	882000	256.5839	0.0116	2.4000e-003	257.5893
Total		256.5839	0.0116	2.4000e-003	257.5893

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	882000	256.5839	0.0116	2.4000e-003	257.5893
Total		256.5839	0.0116	2.4000e-003	257.5893

6.0 Area Detail**6.1 Mitigation Measures Area**

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4602	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9100e-003
Unmitigated	0.4602	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0695					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9100e-003
Total	0.4602	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9100e-003

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0695					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9100e-003
Total	0.4602	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9100e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Wellhead Treatment Centers - San Joaquin Valley Air Basin, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

Wellhead Treatment Centers

San Joaquin Valley Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	100.00	1000sqft	7.00	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

Project Characteristics -

Land Use - Total of 7 Wellhead Treatment Centers will be installed for 8 Wellheads in the City of Atwater. Each site will range from 1/2 acre to 1 acre, a maximum 7 acres was used.

Construction Phase - Estimated construction schedule. Construction phase schedule reduced from 230 day to 190 days total days.

Vehicle Trips - No on-site employees during operation. Net average daily trips will not be increased as a result of the project.

Energy Use - No natural gas useage on site.

Water And Wastewater - No indoor water usage will be associated with the proposed project.

Solid Waste - No solid waste associated with the operational project.

Construction Off-road Equipment Mitigation - Fugitive dust emissions would be controlled by watering on-site at least 2 times daily during construction.

Area Mitigation -

Consumer Products -

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	55	61
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	55	61
tblConstructionPhase	NumDays	230.00	190.00
tblConstructionPhase	PhaseEndDate	2/23/2022	12/30/2021
tblConstructionPhase	PhaseEndDate	12/29/2021	11/4/2021
tblConstructionPhase	PhaseEndDate	2/10/2021	2/11/2021
tblConstructionPhase	PhaseEndDate	1/26/2022	12/2/2021
tblConstructionPhase	PhaseEndDate	1/13/2021	1/14/2021
tblConstructionPhase	PhaseStartDate	1/27/2022	12/3/2021
tblConstructionPhase	PhaseStartDate	2/11/2021	2/12/2021
tblConstructionPhase	PhaseStartDate	1/14/2021	1/15/2021
tblConstructionPhase	PhaseStartDate	12/30/2021	11/5/2021
tblConstructionPhase	PhaseStartDate	12/31/2020	1/1/2021
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24NG	17.03	0.00
tblLandUse	LotAcreage	2.30	7.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	124.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	23,125,000.00	0.00

2.0 Emissions Summary

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	69.7792	40.5396	21.7061	0.0395	18.2141	2.0455	20.2596	9.9699	1.8818	11.8517	0.0000	3,836.3878	3,836.3878	1.1961	0.0000	3,866.2890
Maximum	69.7792	40.5396	21.7061	0.0395	18.2141	2.0455	20.2596	9.9699	1.8818	11.8517	0.0000	3,836.3878	3,836.3878	1.1961	0.0000	3,866.2890

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	69.7792	40.5396	21.7061	0.0395	7.1937	2.0455	9.2392	3.9122	1.8818	5.7940	0.0000	3,836.3878	3,836.3878	1.1961	0.0000	3,866.2890
Maximum	69.7792	40.5396	21.7061	0.0395	7.1937	2.0455	9.2392	3.9122	1.8818	5.7940	0.0000	3,836.3878	3,836.3878	1.1961	0.0000	3,866.2890

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	60.50	0.00	54.40	60.76	0.00	51.11	0.00	0.00	0.00	0.00	0.00	0.00

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	2.5219	9.0000e-005	0.0103	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005	0.0000	0.0233

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	2.5219	9.0000e-005	0.0103	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005	0.0000	0.0233

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/15/2021	2/11/2021	5	20	
3	Building Construction	Building Construction	2/12/2021	11/4/2021	5	190	
4	Paving	Paving	11/5/2021	12/2/2021	5	20	
5	Architectural Coating	Architectural Coating	12/3/2021	12/30/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	42.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

Water Exposed Area

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0794	0.0425	0.5518	1.5100e-003	0.1479	9.9000e-004	0.1489	0.0392	9.1000e-004	0.0401		150.7309	150.7309	4.0300e-003		150.8318
Total	0.0794	0.0425	0.5518	1.5100e-003	0.1479	9.9000e-004	0.1489	0.0392	9.1000e-004	0.0401		150.7309	150.7309	4.0300e-003		150.8318

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

3.2 Site Preparation - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	7.0458	2.0445	9.0903	3.8730	1.8809	5.7539	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0794	0.0425	0.5518	1.5100e-003	0.1479	9.9000e-004	0.1489	0.0392	9.1000e-004	0.0401		150.7309	150.7309	4.0300e-003		150.8318
Total	0.0794	0.0425	0.5518	1.5100e-003	0.1479	9.9000e-004	0.1489	0.0392	9.1000e-004	0.0401		150.7309	150.7309	4.0300e-003		150.8318

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.9285	2,871.9285	0.9288		2,895.1495

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0662	0.0354	0.4599	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		125.6091	125.6091	3.3600e-003		125.6931
Total	0.0662	0.0354	0.4599	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		125.6091	125.6091	3.3600e-003		125.6931

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

3.3 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	2.5554	1.1599	3.7153	1.3133	1.0671	2.3804	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0662	0.0354	0.4599	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		125.6091	125.6091	3.3600e-003		125.6931
Total	0.0662	0.0354	0.4599	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		125.6091	125.6091	3.3600e-003		125.6931

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	1.7424	0.2978	4.5700e-003	0.1085	4.8900e-003	0.1133	0.0312	4.6700e-003	0.0359		478.1607	478.1607	0.0341		479.0142
Worker	0.1854	0.0992	1.2876	3.5300e-003	0.3450	2.3100e-003	0.3473	0.0915	2.1300e-003	0.0936		351.7054	351.7054	9.4100e-003		351.9408
Total	0.2360	1.8416	1.5854	8.1000e-003	0.4535	7.2000e-003	0.4607	0.1228	6.8000e-003	0.1295		829.8661	829.8661	0.0436		830.9550

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

3.4 Building Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	1.7424	0.2978	4.5700e-003	0.1085	4.8900e-003	0.1133	0.0312	4.6700e-003	0.0359		478.1607	478.1607	0.0341		479.0142
Worker	0.1854	0.0992	1.2876	3.5300e-003	0.3450	2.3100e-003	0.3473	0.0915	2.1300e-003	0.0936		351.7054	351.7054	9.4100e-003		351.9408
Total	0.2360	1.8416	1.5854	8.1000e-003	0.4535	7.2000e-003	0.4607	0.1228	6.8000e-003	0.1295		829.8661	829.8661	0.0436		830.9550

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

3.5 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0662	0.0354	0.4599	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		125.6091	125.6091	3.3600e-003		125.6931
Total	0.0662	0.0354	0.4599	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		125.6091	125.6091	3.3600e-003		125.6931

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

3.5 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0662	0.0354	0.4599	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		125.6091	125.6091	3.3600e-003		125.6931
Total	0.0662	0.0354	0.4599	1.2600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		125.6091	125.6091	3.3600e-003		125.6931

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

3.6 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.5250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	69.7439	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0353	0.0189	0.2453	6.7000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		66.9915	66.9915	1.7900e-003		67.0363
Total	0.0353	0.0189	0.2453	6.7000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		66.9915	66.9915	1.7900e-003		67.0363

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

3.6 Architectural Coating - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.5250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	69.7439	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0353	0.0189	0.2453	6.7000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		66.9915	66.9915	1.7900e-003		67.0363
Total	0.0353	0.0189	0.2453	6.7000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		66.9915	66.9915	1.7900e-003		67.0363

4.0 Operational Detail - Mobile

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.506092	0.032602	0.169295	0.124521	0.019914	0.005374	0.021664	0.110051	0.001797	0.001623	0.005307	0.000969	0.000792

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Unmitigated	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3810					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3810					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

Wellhead Treatment Centers

San Joaquin Valley Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	100.00	1000sqft	7.00	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

Project Characteristics -

Land Use - Total of 7 Wellhead Treatment Centers will be installed for 8 Wellheads in the City of Atwater. Each site will range from 1/2 acre to 1 acre, a maximum 7 acres was used.

Construction Phase - Estimated construction schedule. Construction phase schedule reduced from 230 day to 190 days total days.

Vehicle Trips - No on-site employees during operation. Net average daily trips will not be increased as a result of the project.

Energy Use - No natural gas useage on site.

Water And Wastewater - No indoor water usage will be associated with the proposed project.

Solid Waste - No solid waste associated with the operational project.

Construction Off-road Equipment Mitigation - Fugitive dust emissions would be controlled by watering on-site at least 2 times daily during construction.

Area Mitigation -

Consumer Products -

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	55	61
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	55	61
tblConstructionPhase	NumDays	230.00	190.00
tblConstructionPhase	PhaseEndDate	2/23/2022	12/30/2021
tblConstructionPhase	PhaseEndDate	12/29/2021	11/4/2021
tblConstructionPhase	PhaseEndDate	2/10/2021	2/11/2021
tblConstructionPhase	PhaseEndDate	1/26/2022	12/2/2021
tblConstructionPhase	PhaseEndDate	1/13/2021	1/14/2021
tblConstructionPhase	PhaseStartDate	1/27/2022	12/3/2021
tblConstructionPhase	PhaseStartDate	2/11/2021	2/12/2021
tblConstructionPhase	PhaseStartDate	1/14/2021	1/15/2021
tblConstructionPhase	PhaseStartDate	12/30/2021	11/5/2021
tblConstructionPhase	PhaseStartDate	12/31/2020	1/1/2021
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24NG	17.03	0.00
tblLandUse	LotAcreage	2.30	7.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	124.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	23,125,000.00	0.00

2.0 Emissions Summary

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	69.7770	40.5475	21.6236	0.0394	18.2141	2.0455	20.2596	9.9699	1.8818	11.8517	0.0000	3,818.2466	3,818.2466	1.1956	0.0000	3,848.1356
Maximum	69.7770	40.5475	21.6236	0.0394	18.2141	2.0455	20.2596	9.9699	1.8818	11.8517	0.0000	3,818.2466	3,818.2466	1.1956	0.0000	3,848.1356

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	69.7770	40.5475	21.6236	0.0394	7.1937	2.0455	9.2392	3.9122	1.8818	5.7940	0.0000	3,818.2466	3,818.2466	1.1956	0.0000	3,848.1356
Maximum	69.7770	40.5475	21.6236	0.0394	7.1937	2.0455	9.2392	3.9122	1.8818	5.7940	0.0000	3,818.2466	3,818.2466	1.1956	0.0000	3,848.1356

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	60.50	0.00	54.40	60.76	0.00	51.11	0.00	0.00	0.00	0.00	0.00	0.00

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	2.5219	9.0000e-005	0.0103	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005	0.0000	0.0233

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	2.5219	9.0000e-005	0.0103	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005	0.0000	0.0233

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/15/2021	2/11/2021	5	20	
3	Building Construction	Building Construction	2/12/2021	11/4/2021	5	190	
4	Paving	Paving	11/5/2021	12/2/2021	5	20	
5	Architectural Coating	Architectural Coating	12/3/2021	12/30/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	42.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

Water Exposed Area

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0746	0.0504	0.4694	1.3300e-003	0.1479	9.9000e-004	0.1489	0.0392	9.1000e-004	0.0401		132.5897	132.5897	3.5400e-003		132.6783
Total	0.0746	0.0504	0.4694	1.3300e-003	0.1479	9.9000e-004	0.1489	0.0392	9.1000e-004	0.0401		132.5897	132.5897	3.5400e-003		132.6783

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

3.2 Site Preparation - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	7.0458	2.0445	9.0903	3.8730	1.8809	5.7539	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0746	0.0504	0.4694	1.3300e-003	0.1479	9.9000e-004	0.1489	0.0392	9.1000e-004	0.0401		132.5897	132.5897	3.5400e-003		132.6783
Total	0.0746	0.0504	0.4694	1.3300e-003	0.1479	9.9000e-004	0.1489	0.0392	9.1000e-004	0.0401		132.5897	132.5897	3.5400e-003		132.6783

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.9285	2,871.9285	0.9288		2,895.1495

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0621	0.0420	0.3911	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		110.4914	110.4914	2.9500e-003		110.5652
Total	0.0621	0.0420	0.3911	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		110.4914	110.4914	2.9500e-003		110.5652

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

3.3 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	2.5554	1.1599	3.7153	1.3133	1.0671	2.3804	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0621	0.0420	0.3911	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		110.4914	110.4914	2.9500e-003		110.5652
Total	0.0621	0.0420	0.3911	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		110.4914	110.4914	2.9500e-003		110.5652

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0534	1.7591	0.3539	4.4200e-003	0.1085	5.0700e-003	0.1135	0.0312	4.8500e-003	0.0361		463.0415	463.0415	0.0386		464.0065
Worker	0.1740	0.1176	1.0952	3.1100e-003	0.3450	2.3100e-003	0.3473	0.0915	2.1300e-003	0.0936		309.3760	309.3760	8.2700e-003		309.5827
Total	0.2274	1.8767	1.4490	7.5300e-003	0.4535	7.3800e-003	0.4609	0.1228	6.9800e-003	0.1297		772.4176	772.4176	0.0469		773.5891

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

3.4 Building Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0534	1.7591	0.3539	4.4200e-003	0.1085	5.0700e-003	0.1135	0.0312	4.8500e-003	0.0361		463.0415	463.0415	0.0386		464.0065
Worker	0.1740	0.1176	1.0952	3.1100e-003	0.3450	2.3100e-003	0.3473	0.0915	2.1300e-003	0.0936		309.3760	309.3760	8.2700e-003		309.5827
Total	0.2274	1.8767	1.4490	7.5300e-003	0.4535	7.3800e-003	0.4609	0.1228	6.9800e-003	0.1297		772.4176	772.4176	0.0469		773.5891

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

3.5 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0621	0.0420	0.3911	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		110.4914	110.4914	2.9500e-003		110.5652
Total	0.0621	0.0420	0.3911	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		110.4914	110.4914	2.9500e-003		110.5652

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

3.5 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0621	0.0420	0.3911	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		110.4914	110.4914	2.9500e-003		110.5652
Total	0.0621	0.0420	0.3911	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.6000e-004	0.0334		110.4914	110.4914	2.9500e-003		110.5652

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

3.6 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.5250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	69.7439	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0331	0.0224	0.2086	5.9000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		58.9288	58.9288	1.5700e-003		58.9681
Total	0.0331	0.0224	0.2086	5.9000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		58.9288	58.9288	1.5700e-003		58.9681

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

3.6 Architectural Coating - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.5250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	69.7439	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0331	0.0224	0.2086	5.9000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		58.9288	58.9288	1.5700e-003		58.9681
Total	0.0331	0.0224	0.2086	5.9000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		58.9288	58.9288	1.5700e-003		58.9681

4.0 Operational Detail - Mobile

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.506092	0.032602	0.169295	0.124521	0.019914	0.005374	0.021664	0.110051	0.001797	0.001623	0.005307	0.000969	0.000792

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Unmitigated	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3810					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3810					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	2.5219	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Wellhead Treatment Centers - San Joaquin Valley Air Basin, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation
