3.7 ENERGY

Table 3.6-1. Potential Impacts on Energy

	ENVIRONMENTALISSUES	ENVIRONMENTAL IMPACT SIGNIFICANCE
VI.	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?	No Impact
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

Note: "-" indicates blank cell

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

Construction of the proposed project would require energy for the manufacture and transportation of construction materials, preparation of the site for grading and building activities, and construction/installation of equipment and infrastructure. All or most of this energy would be derived from non-renewable resources. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. However, construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the proposed project. The proposed project would use standard construction methodology and equipment; therefore, the project is not anticipated to be more wasteful or inefficient than other similar construction projects. Energy (i.e., fuel) usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources.

Typically, the consumption of energy during the operation of a project is associated with fuel used for vehicle trips and natural gas and energy use within the development. The proposed project is anticipated to require one additional vehicle trip per week to the well sites, therefore, the project would result in a slight increase in fuel consumption. Operation of the project would have similar electricity demand to existing operations; any increase would be negligible compared to existing electricity use in the Fresno County area. There would be no natural gas consumption proposed as a result of implementation of the project.

Construction or operation of the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources; therefore, there would be no impact.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? Energy consumption during construction and operation would not substantially increase compared to existing conditions. Because the project's total impact on regional or State energy supplies would be

negligible, the proposed project would not conflict with or obstruct California's energy conservation plans (CEC 2017). There would be no impact.

3.8 GEOLOGY AND SOILS

Table 3.7-1. Potential Impacts on Geology and Soils

		ENVIRONMENTALISSUES	ENVIRONMENTAL IMPACT SIGNIFICANCE
VII.	Ge	ology and Soils. Would the project:	-
a)		ectly or indirectly cause potential substantial adverse effects, luding the riskof 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 California Geological Survey Special Publication 42.)	No Impact
	ii)	Strong seismic ground shaking?	No Impact
	iii)	Seismic-related ground failure, including liquefaction?	No Impact
	iv)	Landslides?	No Impact
b)	Re	sult in substantial soil erosion or the loss of topsoil?	Less than Significant
c)	be off	located on a geologic unit or soil that is unstable, or that would come unstable because of the project, and potentially result in on- or f-site landslide, lateral spreading, subsidence, liquefaction, or llapse?	No Impact
d)	Bu	located on expansive soil, as defined in Table 18-1-B of the Uniform illding Code (1994, as updated), creating substantial direct or indirect iks to life or property?	No Impact
e)	alt	ave soils incapable of adequately supporting the use of septic tanks or sernative waste water disposal systems where sewers are not ailable for the disposal of waste water?	No Impact
f)	Di or	rectly or indirectly destroy a unique pale ontological resource or site unique geologic feature?	No Impact

Note: "-" indicates blank cell

- 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 California Geological Survey Special Publication 42.)

The proposed project would not exacerbate the potential for rupture of a known earthquake fault. The project area is not located within a designated Alquist-Priolo Earthquake Zone (CDOC 2019a). The nearest active faults to the project area are the San Joaquin fault and Kern Canyon fault zone, which are approximately 60 miles from the project area (USGS 2019). There would be no impact.

ii) Strong seismic ground shaking?

The proposed project would not exacerbate the potential for seismic shaking, as intensity of the earthquake ground motion at the site would depend on the characteristics of the generating fault, distance to the earthquake epicenter, magnitude, and duration of the earthquake, and specific site

geologic conditions, none of which would be altered by the proposed project. Given the distance of the project area from active faults (USGS 2019), the sites would be unlikely to experience strong shaking during an earthquake. There would be no impact.

iii) Seismic-related ground failure, including liquefaction?

Soils in the project area are well-drained sandy loams (NRCS 2019). Poorly drained fine-grained soils such as sandy, silty, and gravelly soils are the most susceptible to liquefaction during the intense shaking of an earthquake. These soils types are not present within the project area; and the project area is not within an area identified as susceptible to significant risk of liquefaction. Therefore, there would be no impact.

iv) Landslides?

The project area is generally flat with little to no slopes. The project area is not susceptible to landslides, and no landslides have been reported (CDOC 2019b). Therefore, there would be no impact.

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

Project construction would involve excavation and grading. During soil disturbance and earthmoving activities, there is potential that exposed soils could be subject to erosional forces from water and wind. Soils on steep slopes are often more erodible, especially during heavy rain events. Since the project area is flat, it is unlikely that soils would erode significantly during construction. However, best management practices (as described in Section 2.2.4) are included as part of the project and would minimize the potential for soil erosion during construction. Therefore, impacts would be less than significant.

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

There are no unstable geologic units within the project area. The project site is not within an area identified as susceptible to significant risk of liquefaction or lateral spreading due to its distance from faults, soil types and geologic conditions.

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

Expansive soils are composed largely of clays, which greatly increase in volume when saturated with water and shrink when dried (referred to as shrink-swell potential). There are no expansive clay soils identified in the project area (NRCS 2019). Therefore, there would be no impact.

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

The proposed project would not require the use of septic systems or alternative waste water disposal systems. There would be no impact.

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

The project sites are in alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated deposits of the Pleistocene-Holocene age (CDOC 2018b). The project area is in an urbanized area with lands that have been previously disturbed, and therefore has low paleontological sensitivity. Excavation and grading would be limited to up to three feet in depth. There would be no impact.

3.9 GREENHOUSE GAS EMISSIONS

Table 3.8-1. Potential Impacts on Greenhouse Gas Emissions

	ENVIRONMENTALISSUES	ENVIRONMENTAL IMPACT SIGNIFICANCE
VII. Greenhouse Gas Emissions. Would the project:		
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant
b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less Than Significant

Note: "-" indicates blank cell

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

Heavy-duty off-road equipment, materials transport, and worker commutes during construction of the project would result in exhaust-related GHG emissions. Construction of the project would result in the generation of approximately 102 MT CO2e.

As described previously, the purpose of the project is to improve the water quality. As such, the project is not anticipated to result in an increase in vehicle trips associated with operations or maintenance or increase water supply capacity. Therefore, operational emissions associated with the project would be limited to stationary source exhaust emissions from the emergency generator and landscape equipment at the new well sites, and indirect emissions from energy consumption from additional site lighting. Table 3.8-2 summarizes the construction-related and operational GHG emissions associated with the project.

Table 3.8-2: Construction and Annual Operational GHG Emissions

Description	GHG Emissions (MT CO2e)
Construction Emissions	102
Operational Emissions Per Year	4
Annual SMAQMD Threshold of Significance	1,100
Exceeds SMAQMD Threshold?	No

Notes: MT CO2e = metric tons carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District

As shown in Table 3.8-2, the total construction-related and annual operational emissions of the project would not exceed the SMAQMD¹ threshold of 1,100 MT CO2e per year. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be less than significant.

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

As discussed in more detail in the Air Quality and Greenhouse Gas Emissions technical memorandum prepared for the project (AECOM 2020), in response to AB 32 and SB 32, the California Air Resources Board has approved a series of Climate Change Scoping Plans and Scoping Plan updates. While the Scoping Plan updates do include measures that would indirectly address GHG emissions associated with construction and operational activities, including the phasing in of cleaner technology for diesel engine fleets (including construction equipment) and Low Carbon Fuel Standard, successful implementation of these measures predominantly depends on the development of laws and policies at the state level. As such, none of these statewide plans or policies constitutes a regulation to adopt or implement a regional or local plan for reduction or mitigation of GHG emissions. Thus, it is assumed that any requirements or policies formulated under the mandate of AB 32 and SB 32 that would be applicable to the project, either directly or indirectly, would be implemented consistent with statewide policies and laws.

In March 2017, the California State Water Resources Control Board adopted a Climate Change Resolution focused on reducing GHG emissions and building resilience to climate change impacts (State Water Board 2017). This action builds on a resolution adopted by the Board in 2007, which set forth initial actions it should take to respond to climate change and support the implementation of AB 32. Since that time, the California Water Action Plan was developed which is a blueprint for achieving more sustainable water management by improving water supply reliability, restoring important wildlife and habitat, and making the state's water systems and environment more resilient. The resolution calls for a proactive approach to climate change, including a drinking water regulation and water quality protection. Since the purpose of the project is to improve water quality, the project would not conflict with the State Water Resources Board Climate Change Resolution.

In addition, the project's emissions would not exceed the SMAQMD threshold of significance which was developed considering the AB 32 and SB 32 statewide reduction goals. Thus, the project would not conflict with the AB 32 and SB 32 Scoping Plan; or any other relevant plans, policies, or regulations for the purpose of reducing GHG emissions. Therefore, the project's contribution to cumulatively

It is not the intent of this document to cause the adoption of these thresholds as mass emissions limits for this or other projects, but rather to provide this additional information to put the project-generated GHG emissions in the appropriate statewide context.

¹ Since the project primarily involves construction activities, and the SJVAPCD has not determined a specific quantitative level of GHG emissions increase, above which a project would have a significant impact on the environment, and below which would have an insignificant impact (SJVACPD 2015), and the Del Rey Community Services District has not adopted a threshold, this analysis reviewed thresholds adopted by other districts and agencies. For example, the Sacramento Metropolitan Air Quality Management District (SMAQMD) has identified an annual threshold of 1,100 MT CO₂e for the construction and operational phases of projects. The threshold set by the SMAQMD was developed considering the AB 32 and SB 32 statewide reduction goals. Therefore, this analysis utilizes the 1,100 MT CO₂e threshold developed by SMAQMD for conservative purposes.

significant impacts to global climate change would not be considerable. The impact would be less than significant.

3.10 HAZARDS AND HAZARDOUS MATERIALS

Table 3.9-1. Potential Impacts on Hazards and Hazardous Materials

	ENVIRONMENTALISSUES	ENVIRONMENTAL IMPACT SIGNIFICANCE
IX.	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?	No Impact
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	No Impact
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
d)	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, therefore, would it create a significant hazard to the public or the environment?	No Impact
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	No Impact

Note: "-" indicates blank cell

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of the project would involve the occasional transportation, use, and disposal of typical construction-related materials, such as fuel, oil, lubricants, and adhesives. The construction contractor would be required to comply with all relevant federal, State, and local statutes and regulations related to the transport, use, storage, or disposal of hazardous materials, including OSHA regulations to protect workers through hazard communication and provision of adequate training. Any unused construction-related hazardous materials would be removed from the site and disposed pursuant to applicable federal, State, and local regulations.

A new 200-gallon sodium hypochlorite tank would be installed at Well Sites 4, 6 and 7 and the existing sodium hypochlorite tank at Well Site 7 would be removed. Safety eye wash/shower stations would be installed at each of the chemical buildings. New virgin carbon for the GAC treatment systems would be brought to the well sites approximately every 12 to 18 months, and the spent carbon material would be picked up by the carbon supplier and disposed of by regeneration at their licensed sites according to

their State licenses. The project would include installation and occasional operation (for emergency backup only) of a standby generator with double-walled 300-gallon capacity diesel tank at Well Site 4. Existing standby generators at Well Sites 6 and 7 would remain and would be operated in a similar manner to existing conditions.

Chemicals used at the well sites would be handled in accordance with relevant federal, State, and local regulations, and are not anticipated to pose a substantial risk of release to the environment. Usage and storage of these chemicals would comply with the applicable safety data sheets (SDS) for each chemical. There would be no impact.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

As noted above, compliance with relevant federal, State, and local regulations and standard construction practices would minimize potential risks of accidental release. The quantities of hazardous substances to be stored at each site would be minimal, and secondary containment would be included. There would be no impact.

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

Well Site 5 is immediately adjacent to the Del Rey School playing fields, and Well Site 6 is also within a quarter mile of this school. Well Sites 4 and 7 are just over a quarter mile from the school (approximately 1400 feet east and southeast, respectively). Although hazardous materials (e.g., fuels, lubricants, adhesives) would be handled at Well Sites 5 and 6 during construction and operation, as described above under impact (a), the measures taken to comply with relevant federal, State and local regulations to protect the environment and workers would also serve to protect adjacent sensitive receptors such as students at nearby schools. There would be no impact.

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

None of the four well sites are on properties that are included on the "Cortese List" of hazardous materials sites (DTSC 2019; SWRCB 2019). The nearest Cortese List site is the HS Mann site (now POM Wonderful facility) approximately 130 feet east of Well Site 4 (across the former railroad right-of-way). Historic metal recovery operations occurring at the HS Mann site in the 1960s and 1970s resulted in contamination of soil and shallow groundwater with copper, lead, zinc, and unspecified acids (DTSC 2019). Remedial actions were undertaken at the site in 2004, and deed restrictions were emplaced on the land parcels APN 350-031-04 and 350-031-07 (since renumbered to APNs 350-230-11T and 350-230-12T) requiring notification for excavation or subsurface work, and prohibiting use of the site for residential, daycare, school, or hospital use. The deed restrictions do not apply to the Well Site 4 property, and previous geotechnical investigations at Well Site 4 did not observe any contamination.

Because the project would not be located on a site that is included on the Cortese List, there would be no impact.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

There are no public airports or public use airstrips within 2 miles of the project area (FAA 2019). The POM Wonderful airstrip, approximately 800 feet to the southwest of Well Site 4, is a private use airstrip and therefore not subject to this CEQA threshold. In any case, the proposed project improvements would not create a safety hazard or excessive noise related to the nearby airstrip. There would be no impact.

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

The project would construct and operate additional infrastructure on existing water supply well sites within the Del Rey community. Traffic disruption from construction activities would be short-term and limited to the immediate vicinity of the construction areas, and is therefore unlikely to interfere with emergency response actions or evacuations. Alternative routes would be available if temporary road closures are necessary for installation of the new pipeline between well sites 5 and 6. There would be no impact.

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

The project area is not within a moderate, high or very high fire severity hazard zone (CALFIRE 2007). Given the urban nature of the project area and lack of vegetation at the well sites, the risk of wildland fire would be minimal. There would be no impact.

3.11 HYDROLOGY AND WATER QUALITY

Table 3.10-1. Potential Impacts on Hydrology and Water Quality

ENVIRONMENTAL ISSUES ENVIRONMENTAL IMPACT SIGNIFICANCE IX. 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? ENVIRONMENTAL IMPACT SIGNIFICANCE Less than Significant No Impact

	ENVIRONMENTALISSUES	ENVIRONMENTAL IMPACT SIGNIFICANCE
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces, in a manner that wou	or
	i) result in substantial on- or off-site erosion or siltation on- or of site?	ff-
	 substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-or off-site; 	a No Impact
	 iii) create or contribute runoff water that would exceed the capa- existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or 	city of
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants to project inundation?	s due No Impact
e)	Conflict with or obstruct implementation of a water quality controor sustainable groundwater management plan?	ol plan No Impact

Note: "-" indicates blank cell

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

Construction activities can pose a threat of short term increases in erosion, sedimentation, and other types of construction-related water pollution that could temporarily result in water quality violations. Because the project will not involve more than one acre of total disturbed area, a Stormwater General Construction Permit will not be required and a SWPPP is therefore not mandatory for this project. However, appropriate stormwater control and erosion control BMPs (described in Section 2.2.4) are included as part of the project and will be incorporated into construction specifications. These BMPs require the preparation and implementation of a SWPPP for the project site. With implementation of the BMPs, potential temporary adverse effects on water quality during construction would be less than significant.

Operation and maintenance of the treatment systems would be similar to existing operations at the well sites, and would not result in violations of water quality standards or other degradation of water quality.

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

Although the proposed project involves a water system that is supplied from groundwater, no changes in the amount of water pumped from the wells is proposed. The purpose of the project is to update wellhead treatment equipment to improve water quality. Therefore, the project would not substantially decrease groundwater supplies. There would be no impact.

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- 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 that would:
 - i) result in substantial on- or off-site erosion or siltation on- or off-site?
 - ii) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite?
 - iii) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The proposed project would not substantially alter existing drainage patterns at the site and there are no nearby streams or rivers nearby that would have their courses altered as a result of the project.

Construction activities required to implement the project could pose a threat of short term increases in erosion, sedimentation, and other types of construction-related water pollution. Because the project will not involve more than one acre of total disturbed area, a Stormwater General Construction Permit will be not required and a SWPPP is therefore not mandatory for this project. However the BMPs described in Section 2.2.4 include preparation of a SWPPP, and are included as part of the project and will be incorporated into construction specifications. With implementation of the BMPs, potential temporary adverse effects to stormwater during construction would be less than significant.

There would be a minor increase (approximately 2,500 square feet) in the amount of permanent impervious surface area at well sites 4 and 6, which would have only a negligible increase in stormwater runoff. This negligible increase is not anticipated to result in increased flooding or exceed the capacity of existing stormwater drainage systems. There would be no permanent impact.

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

The project area is in an area of minimal flood hazard (FEMA 2019). The project area is also not in a tsunami or seiche zone. Therefore, there would be no impacts related to releases of pollutants due to project inundation.

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

The project would not result in substantial changes to water quality (other than to improve it) or groundwater management, and therefore would not conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan.

3.12 LAND USE AND PLANNING

Table 3.11-1. Potential Impacts on Land Use and Planning

	ENVIRONMENTAL ISSUES		ENVIRONMENTAL IMPACT SIGNIFICANCE
X.	Land Use and Planning. Would the project:		-
a)	Physically divide an established community?		No Impact
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-	ENVIRONMENTALISSUES	ENVIRONMENTAL IMPACT SIGNIFICANCE
b)	Cause a significant environmental impact due to a conflict with any	
	land use plan, policy, or regulation adopted for the purpose of	No Impact
	avoiding or mitigating an environmental effect?	

Note: "-" indicates blank cell

a) Physically divide an established community?

The project area is in unincorporated Fresno County in the Del Rey community. The immediate area contains predominantly developed commercial and residential land, with agricultural uses to the west and industrial uses to the east. The proposed project would not change the nature of existing land uses at the well sites, and would not divide an established community or introduce physical features that would create a barrier, divide, or separate adjacent uses; or impede movement or circulation on existing public roads, streets, or paths. There would be no impacts related to physically dividing an established community.

Conflict with any applicable land use plan, policy, or regulation of an agency with b) jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Well sites 4, 5 and 6 are in an AL20-Limited Agricultural District; and well site 7 is in a R2-Low Density Multiple Family Residential District (County of Fresno 2019b). These districts allow for utility uses, which would be subject to County review and approval (County of Fresno 2000; 2018). While the project would add new structures, these structures would be compatible with existing infrastructure at the well sites. The project features would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project would be compatible with the surrounding uses. Therefore, there would be no impact.

Del Rey CSD TCP Wellhead Treatment for Wells 4, 5, 6 and 7