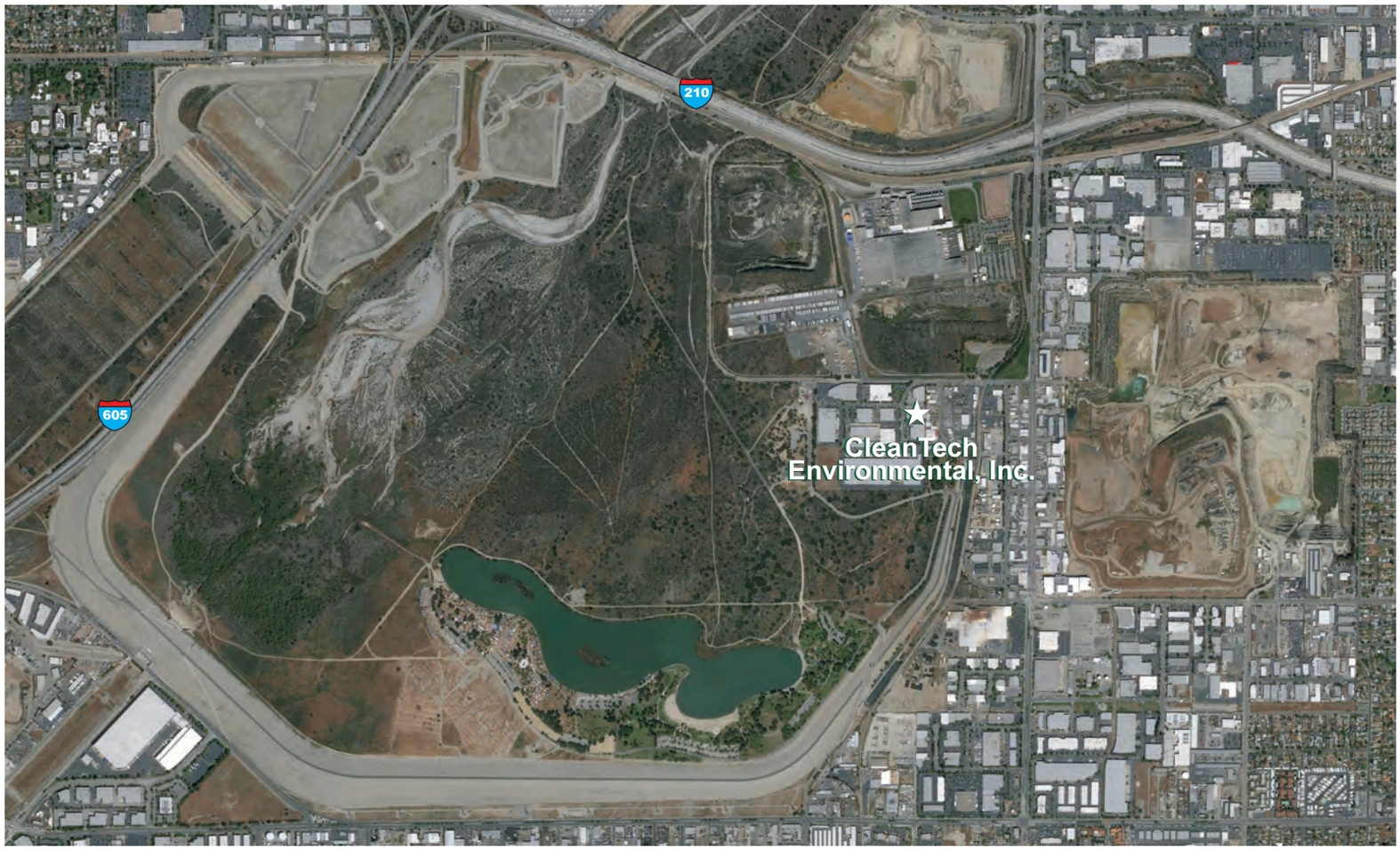
Draft Environmental Impact Report

for the

CleanTech Environmental, Inc.
Hazardous Waste Facility Permit

California Department of Toxic Substances Control

SCH #2011111065



Prepared for:

California Department of Toxic Substances Control
Office of Permitting
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

August 2014

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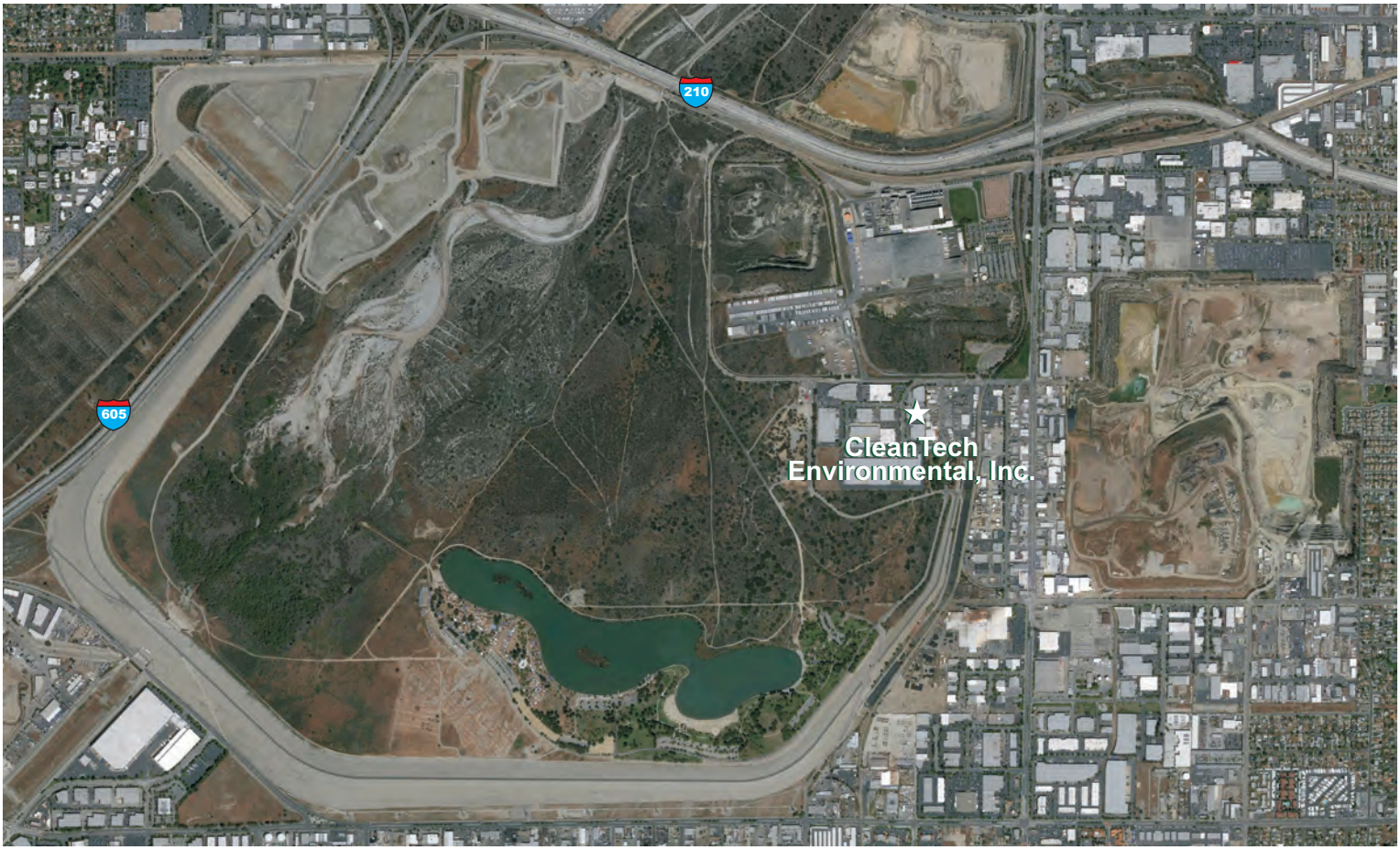

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Acronyms and Abbreviations

AB	Assembly Bill
ADT	average daily traffic
ALW	Azusa Light and Water
AMSL	above mean sea level
APMs	applicant-proposed mitigation measures
AQMPs	air quality management plans
ARB	Air Resources Board
BACT	best available control technology
BCC	Birds of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
BN&SF	Burlington Northern and Sante Fe
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal ARP	California Accidental Release Prevention Program
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Occupational Safety and Health Administration
CCAA	California Clean Air Act
CDFFP	California Department of Forestry and Fire Protection
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFATS	Chemical Facility Anti-Terrorism Standard
CFR	Code of Federal Regulations
CH_4	methane
CHP	California Highway Patrol
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO2e	carbon dioxide equivalent
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Ranks
CUPA	Certified Unified Program Agency
CVC	California Vehicle Code
CWA	Clean Water Act
dB	decibel
Dba	A-weighted sound level
DHS	U.S. Department of Homeland Security

DMV	Department of Motor Vehicles
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DPR	Department of Pesticide Regulation
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EPCRA	Emergency Planning and Community Right-To-Know Act
ESA	Endangered Species Act
ESA	Environmental Site Assessment
FAM	Fault Activity Map
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
FP	Fully Protected
GCC	global climate change
GHG	greenhouse gas
GWP	global warming potential
HAZWOPER	Hazardous Waste Operations and Emergency Training Course
HMBPs	Hazardous Materials Business Plans
HME	Hazardous Materials Endorsement
HMTA	Hazardous Materials Transportation Act
HMTERP	Hazardous Materials Transportation Emergency Response Plan
HNO_3	nitric acid
HSWA	Hazardous and Solid Waste Amendments
HWCA	Hazardous Waste Control Act
HWF	Hazardous Waste Facility
I/M	inspection and maintenance
IPCC	Intergovernmental Panel on Climate Change
IS/ND	Initial Study/Negative Declaration
IUCN	International Union for Conservation of Nature
IWMB	Integrated Waste Management Board
LACFD	Los Angeles County Fire Department
LEPC	Local Emergency Planning Committee
Leq	equivalent noise level
Lmax	maximum noise level
Lmin	minimum noise level
LOS	Level of Service
LST	localized thresholds of significance
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Report Plan
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning Act

NCP	National Contingency Plan
NFIP	National Flood Insurance Program
NH_3	ammonia
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_x	nitrogen oxide
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
NPS	National Park Service
NRHP	National Register of Historic Places
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHW	Ordinary High Water
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PCBs	Polychlorinated Biphenyls
PERP	Portable Equipment Registration Program
PM10	respirable particulate matter
PM2.5	fine particulate matter
PPV	peak particle velocity
RC	remote control
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC-CSUF	South Central Coastal Information Center at California State University Fullerton
SEA	Significant Ecological Area
SERC	State Emergency Response Commission
SFDRA	Santa Fe Dam Recreational Area
SIP	State Implementation Plan
SO_2	sulfur dioxide
SPCC	Spill, Prevention, Control, and Countermeasure Rule
SRA	Source Receptor Area
SSC	Species of Special Concern
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TCR	The Climate Registry
TDS	total dissolved solids
TIS	Traffic Impact Studies
TSA	Transportation Security Administration
TWIC	Transportation Worker Identification Credential
U.S.	United States

USACE	U.S. Army Corps of Engineers
USEPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
UST	Underground Storage Tank
VMT	vehicle-miles-traveled
VOC	volatile organic compound
WL	Watch List
WQA	Water Quality Authority

Executive Summary

ES.1 Overview

The purpose of the Executive Summary and impact summary table is to provide the reader with a brief overview of the proposed Project, project alternatives, the anticipated environmental effects, and the potential mitigation measures that could reduce the severity of the impacts associated with the Project. The Department of Toxic Substances Control (DTSC), as lead agency under the California Environmental Quality Act (CEQA), has prepared this Environmental Impact Report (EIR) in accordance with CEQA, Public Resources Code Sections 21000 et seq., the State CEQA Guidelines, and 14 CCR Sections 15000 et seq.

This EIR is an informational document that is being used by the general public and governmental agencies to review and evaluate the Project. The reader should not rely exclusively on the Executive Summary as the sole basis for judgment of the Project and alternatives. The complete EIR should be consulted for specific information about the environmental effects and the implementation of associated mitigation measures.

Environmental Impact Report Scope

This EIR examines potential short-term and long-term impacts of the proposed Project. These impacts were determined through a rigorous process mandated by CEQA in which existing conditions are compared and contrasted with conditions that would exist once the Project was implemented. The significance of each identified impact was determined using available resource agency Thresholds of Significance, such as the South Coast Air Quality Management District thresholds for air pollutant and greenhouse gas emissions, or other CEQA thresholds determined through a review of CEQA guidelines and the CEQA checklist where there are not appropriate resource agency thresholds. The following categories are used for classifying Project-related impacts:

- *Class I* – Significant adverse impacts that cannot be feasibly mitigated or avoided. If the Project is approved, decision makers are required to adopt a statement of overriding considerations, pursuant to CEQA Section 15093, explaining why Project benefits outweigh the unavoidable, adverse environmental effects.
- *Class II* – Significant adverse Impacts that can be feasibly mitigated or avoided. If the Project is approved, decision makers are required to make findings pursuant to CEQA Section 15091, that impacts have been mitigated to the maximum extent feasible by implementing the recommended mitigations.
- *Class III* – Adverse impacts that are less than significant. These impacts do not require mitigation, nor do they require that CEQA findings be made.
- *Class IV* – No Impact.

Notice of Preparation

On December 30, 2013, DTSC distributed a Notice of Preparation (NOP) describing the Project for review by affected State, county, and city agencies, utility providers, interested organizations, and the general public. In addition to obtaining written comments on the NOP, during the 33-day public comment period, two public scoping meetings were held on January 14, 2014. The meetings provided opportunity

for affected public agencies and the public to express concerns about the Project and issues that should be addressed in the Project EIR. All comments (written, e-mail, and verbal) were considered as part of preparation of this EIR.

ES.2 Description of the Proposed Project

The proposed Project would involve the construction of a used oil recycling facility and California designated hazardous waste collection facility, which would be entirely constructed within the existing 0.98-acre CleanTech site located at 5820 Martin Road in Irwindale, California (see Figure ES-1). The facility would be designed to accept and process up to 1,500,000 gallons of used oil per month. Other California designated hazardous wastes received, in much smaller monthly throughput quantities, would include waste antifreeze, non-Resource Conservation and Recovery Act (RCRA) wastewater (such as oily wastewater), and oil-contaminated solid waste. Federal hazardous wastes and non-hazardous wastes would not be received and stored at the site as part of the Project. The major components of the proposed facility include the following:

- Two new, three total, truck unloading/loading bays and epoxy-coated Visqueen-lined steel rebar reinforced concrete sumps;
- Tank containment areas with epoxy-coated Visqueen-lined steel rebar reinforced concrete slabs and lined concrete sumps;
- Twelve new, fourteen total, 20,000-gallon storage tanks (some with multiple compartments); and
- Removal or relocation of the existing recycled oil filtering operation and oil filter crushing operation.
- The EIR also presents alternatives to the Project, including the “No Project” alternative, and a qualitative assessment of the impacts that would be associated with the implementation of each. Finally, the cumulative impacts of the Project, when added to other local proposed or approved projects, were also evaluated.

All construction activities, other than the improved truck ramps, would occur inside of the existing site building. All waste transfer and treatment operations would occur inside of the existing site building. The proposed Project is comprised of two separate process areas, separated by an internal wall, and four total process units. The description of these two process areas and process units is provided below.

Process Area 1

Process Area 1, which is on the east side of the building, and is separated from the rest of the building by a wall, completely contains two process units identified as Unit 1 and Unit 2. This process area contains the drum storage and transfer area, drum and material processing area, one 10- to 15-yard roll-off bin (Unit 1), and three storage/transfer processing tanks (Unit 2). This process area would receive all of the incoming drummed/containerized waste materials (Unit 1), and would also normally receive used oil from small quantity containers delivered on box trucks or from third party collectors (Unit 2). Bulk waste deliveries may also be received into the Unit 2 tanks.

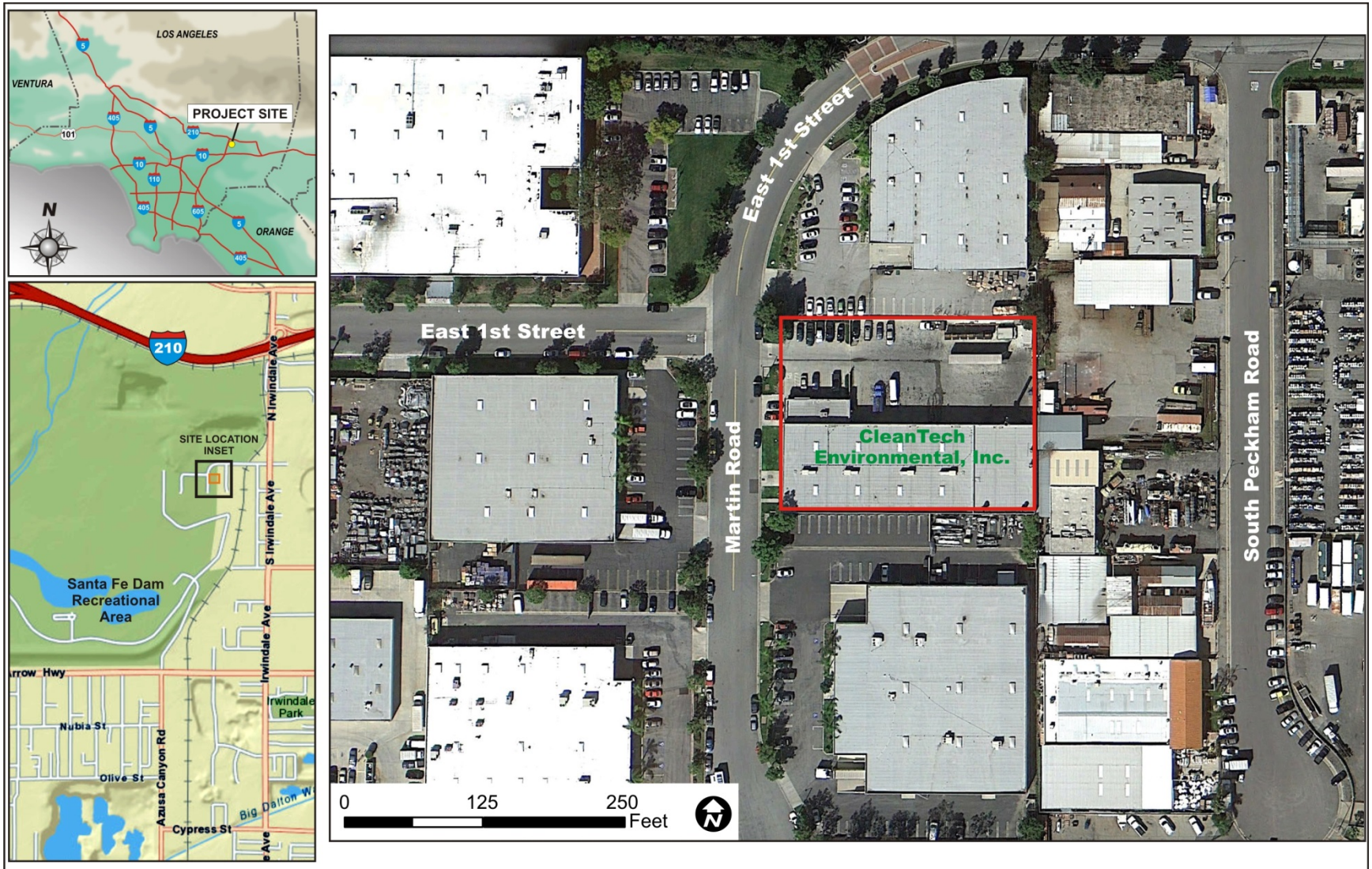


Figure ES-1

Site Location

Unit 1 – Drum Storage Area

This area is designed to contain, handle, and process up to 384 drums, a mixture of drums and totes ranging in size from 5-gallon to 55-gallon drums, 250-gallon to 330-gallon totes, cubic-yard boxes, and one 10- to 15-cubic-yard roll-off bin. Drums, totes, boxes, and bins may be stored for up to 90 days prior to being shipped off site. The total storage volume of this Unit would be 21,120 gallons.

Unit 1 is also used for shipping and receiving, loading and unloading of materials, solids and liquids transfer of materials from drum to drum, drum to tote, tote to drum, drum/tote to process tanks, drum to roll off, tanker to receiving tank/storage tank, receiving tank/storage tank to tanker, etc. This unit would include a steel-grated, epoxy-coated, 7-inch-thick steel rebar reinforced and Visqueen-lined concrete sump (sump No. 1) with a capacity of approximately 1,100 gallons. The truck unloading operations will occur directly above this sump. Ramp No. 1, which serves as part of the Process Area 1 loading/unloading area does not require permitting and is not permitted as part of Unit 1, or Unit 4, because no truck to truck transfer will occur on ramp No. 1 and truck loading and unloading activities alone do not require a hazardous waste facility permit. However, the loading and unloading activities that do occur through ramp No. 1, including the throughput and truck traffic associated with this ramp, are included in the assessment of the proposed Project's impacts.

Unit 2 – Multi-Compartment Tanks

This Unit will contain three 20,000-gallon, above-ground steel storage tanks (Tanks 1 – 3). The total volume of liquid storage in this unit would be 60,000 gallons. Each 20,000-gallon storage tank is sub divided into two separate compartments, identified as follows:

TANK #1:

a. Compartment 1A: 10,000-gallon capacity, contents Used Anti-Freeze
b. Compartment 1B: 10,000-gallon capacity, contents Non-RCRA Wastewater

TANK#2:

a. Compartment 2A: 10,000-gallon capacity, contents Used Oil
b. Compartment 2B: 10,000-gallon capacity, contents Used Oil

TANK#3:

a. Compartment 3A: 10,000-gallon capacity, contents Used Oil
b. Compartment 3B: 10,000-gallon capacity, contents Used Oil

Process Area 2

Process Area 2 contains two Units identified as Unit 3 and Unit 4. This process area is located inside of the existing site building adjacent to and west of Process Area 1. This process area contains the general bulk processing area, and storage and spill containment tank area. The total volume of liquid storage in this process area will be 220,000 gallons.

Unit 3 – Tank Storage Area

This Unit will contain eleven 20,000-gallon tanks (Tanks 4 – 14). Each tank has an operating capacity of 20,000 gallons. These tanks can be described as follows:

a. Tanks 4, 5, 6, 8, 9, 10, 11, 12, 13, and 14 are 20,000-gallon tanks that have a single compartment and are used for the blending, bulking, and storage of used oil and/or certified oil.

b. Tank 7, a 20,000-gallon tank with three separate compartments: 7A, 7B, and 7C, would be used for the storage of used antifreeze and non-RCRA wastewater, and for the collection of liquid waste from process spills collected from any of the various sumps located in the process areas, stormwater collected from exterior areas, etc.

The tanks that will be designated as Tanks 6 and 7 have already been installed at the site and are currently part of the existing recycled oil filtering operation. These two existing tanks will be repurposed for use as noted above.

Unit 4 – Loading and Unloading Area

This process unit includes the shipping and receiving, loading and unloading of materials, solids, and liquids, transfer of materials from tanker to receiving tank/storage tank, receiving tank/storage tank to tanker, tanker to tanker, and other truck to truck transfers. This unit is comprised of two truck unloading ramps/bays that each have a steel-grated, epoxy-coated, 7-inch-thick concrete, steel rebar-reinforced, and Visqueen-lined sump with a capacity of approximately 1,100 gallons. Ramp and sump No. 2 have already been constructed, while ramp and sump No. 3 would be constructed as part of the proposed Project. The truck unloading operations will occur directly above these sumps.

All shipping and receiving areas would be located within the facility and would be operated and contained within a diked and/or bermed concrete, epoxy-coated containment area. The entire area outside of the building, within the concrete service yard, is fenced. Employee parking is located outside of the fenced process area.

The proposed new facility would be operated 24 hours per day, 6 days per week (Sunday through Friday), and 52 weeks per year. A total of 20 new employees, not including truck drivers, will be required for the operation of these new processes and associated office support work. The incoming waste oil and other wastes will be gathered and trucked to the CleanTech site from various points surrounding the Project site within Southern California, as well as from the San Joaquin Valley and San Diego Areas. The primary local transportation route to and from the site will be the 210 Freeway, exiting onto Irwindale Avenue traveling south and turning right onto 1st Street, and then turning right onto Martin Road to the Project site. The outgoing bulked recycled oil and other bulked wastes are currently proposed to be trucked to the neighboring Veolia facility located 0.25 miles from the CleanTech site for further processing, or to the Port of Los Angeles/Port of Long Beach and the Crosby & Overton waste treatment facility in Long Beach using the same local transportation route up to the 210 Freeway. CleanTech's future business plans include diversifying their recycled oil clientele, which would require the further treatment of the recycled oil locally to allow its use in the recycled base oil market (Azusa), as well as, trucking recycled oil for use as a fuel to remote boiler/burner facilities in Arizona and Nevada (such as cement kilns and asphalt batch plants) that do not have natural gas service.

Please see Section 2 (Project Description) for additional information and figures related to the proposed Project's description and design.

Summary of Project Impacts

The significance of each impact resulting from implementation of the Project has been determined according to relevant CEQA significance thresholds. As discussed in the EIR, there are only nine potentially significant impacts associated with implementation of the Project:

1. Construction of the site might not conform to appropriate greenhouse gas mitigation measures. A mitigation measure that requires appropriate construction wastes (concrete and wallboard) to be recycled to the extent feasible reduces this impact to less than significant.

2. It is possible, but very unlikely, that construction excavation activities could result in the discovery of cultural resources. A mitigation measure that requires proper handling and management of the discovered resource, and another mitigation measure that requires a Native American monitor to be present during excavations below the existing engineered fill layer, reduces this potential impact to less than significant.

3. It is possible, but very unlikely, that construction excavation activities could result in the discovery of human remains. A mitigation measure that requires proper handling and management of the discovered human remains reduces this potential impact to less than significant.

4. The increase in hazardous materials transportation would increase the potential for accidental spills that could have significant consequences. A mitigation measure that requires a hazardous materials transportation emergency response plan would reduce the potential for spills, as well as reduce the potential impacts of transportation spills to less than significant.

5. The Project's construction activities could violate water quality regulations if the water quality permits are not updated appropriately and implemented. A mitigation measure requiring the applicant to provide correspondence with the affected regulatory agencies and any updated water quality permits prior to construction will reduce these potential impacts to less than significant.

6. The increase in noted hazardous material transportation and resulting potential for spills could also create impacts to surface water. Mitigation measures will also reduce these potential impacts to less than significant.

7. Construction activities, if conducted outdoor and outside of 7:00 a.m. to 10:00 p.m., could violate the City of Irwindale's noise ordinance. A mitigation measure that requires the applicant to only schedule indoor construction activities if construction is ever required to occur between 10:00 p.m. and 7:00 a.m. reduces these potentially significant construction noise impacts to less than significant.

8. Truck noise during site operations could cause significant impacts if trucks are not regularly serviced and the designated truck route restrictions are not followed. A mitigation measure that requires compliance with California Vehicle Code noise regulations and compliance with the truck route restriction reduces this potential noise impact to less than significant.

9. Construction and operation of the Project would increase truck traffic in the Project area. If the trucks are not routed properly they could impact intersections and freeways operating at a level of service (LOS) F during rush hour. A mitigation measure that requires that trucks be routed and scheduled in a manner to avoid the LOS F intersections and that truck trips are also scheduled, as feasible, to avoid freeway rush-hour traffic reduces this impact to less than significant.

The rest of the proposed Project's impacts have been found to be less than significant, or they have been identified as no impact. Table ES-1 (Summary of Impacts and Mitigation Measures) is provided at the end of this section and presents a summary of the potentially significant environmental impacts that would result from the proposed Project and the mitigation measures proposed to reduce those impacts to less than significant. It is organized to correspond with the order of the environmental issues discussed in Section 3 (Environmental Setting, Impacts, and Mitigation Measures).

Table ES-1 is arranged in five columns: the identified potentially significant impact statement number under each EIR issue area; the project phase with the potentially significant impact (construction and/or operation); a summary of the impact; mitigation measures that reduce the level of impacts; and the level of significance after implementation of the mitigation measures.

ES.3 Project Alternatives

Section 5 (Alternatives) provides a description of the potential Project alternatives ranging from alternative technologies, alternative sites, alternative project sizes, and the No Project Alternative. The No Project Alternative has been evaluated as required under §15126.6 (e) of the California Code of Regulations. The alternatives analysis includes a discussion of alternatives that were dismissed from further consideration, as well as a comparative analysis of a reasonable range of potentially feasible Project alternatives.

The alternatives in the comparative analysis include the following:

Alternative 1 – No Project Alternative

Under this alternative, the proposed Project would not be constructed and the existing uses at the Project site would not be affected.

Alternative 2 – Reduced Project Size

This alternative would be implemented on the same site as the Project and follow Project construction practices and regulatory requirements. Project construction requirements and the constructed Project components (tanks/piping) would be reduced, as would the number of truck trips required during operation.

Alternative 3 – Alternative Project Location

This alternative would be implemented on the same scale as the Project and follow Project construction practices and regulatory requirements. However, this alternative would require the applicant to acquire the rights to a properly zoned and sized property within or near to the Port of Long Beach. Construction requirements would be increased due to not being able to use the existing site tanks and truck ramp/sump. Some transportation trips distances would be reduced and some would be increased, including the need to add more trucks for the daily waste pick up due to longer routes and increased traffic delays that occur in and around the Port of Long Beach area. Overall, the transportation requirements would increase considering CleanTech's market plans for a diverse recycled oil client base.

Environmentally Superior Alternative

As discussed in Section 3 (Environmental Setting, Impacts, and Mitigation Measures) and Section 5 (Alternatives), the analysis contained in this EIR concluded that the proposed Project and all alternatives considered would result in less than significant impacts, with the potential exception of air quality and transportation impacts for Alternative 3 (Alternate Project Location). The No Project Alternative (Alternative 1) would result in the lowest level of localized impacts; however, the No Project Alternative would result in higher regional and global scale impacts that would be required to address the used motor oil and other waste streams that would occur with or without the Project. Additionally, the No Project Alternative would not meet Project objectives as discussed in Section 5.1.1 (Consistency with Project Objectives).

There are adverse impacts associated with the proposed Project and Alternatives 2 (Reduced Project Alternative) and 3, and while some of those impacts may be reduced, at least locally, under Alternatives 2 and 3, Alternatives 2 and 3 do not meet all of the Project objectives and do not cause an overall reduction of impacts from the necessary collection and recertification of used oil to recycled oil, or the collection and eventual treatment of the other Project waste streams. Alternative 2 would not meet the objective of collecting, testing, treating, certifying, and transporting up to 1.5 million gallons of used oil per month.

Alternative 3 would not meet the objective of being able to further treat the certified recycled oil locally as necessary to efficiently serve a diverse client base, including; clients at the Ports of Long Beach/Los Angeles, recycled base oil market in Azusa, and remote boiler/fuel burners in Nevada and Arizona. Therefore, the proposed Project is considered to be the environmentally superior alternative for the following reasons:

1. The proposed Project would treat more used oil and certify more recycled oil than Alternative 2 or the No Project Alternative. The permitted and controlled recycling of used oil is a beneficial action that would:
    a. Reduce the need for additional petroleum extraction and refining, and
    b. Ensure that used oil wastes are properly collected and treated and not emitted to the environment.
2. Used oil and other waste streams would require collection and treatment, regardless of the whether the project is approved. So, while the No Project Alternative is analyzed in the context of the approval of this particular Project, it does not represent a physical reality as these waste streams will require collection and treatment with or without the Project, which if done under the No Project Alternative or Alternative 2 in a more piecemeal and less regulated fashion than would occur under the proposed Project would surely increase the overall impacts associated with these waste streams.
3. The proposed Project would perform the same functions as Alternative 2 and 3, but would meet all Project throughput objectives and be more efficient, and therefore result in lower impacts for the same amount of waste throughput, due to a greater economy of scale related to the additional waste storage and throughput capacity Therefore, the regional impacts related to the collection and processing of the waste stream quantities identified for the proposed Project are lower for the proposed Project than they would be for Alternative 2. Additionally, Alternative 2 leaves space for other operations at the proposed Project site that could create increase the localized adverse impacts associated with site operations.
4. The proposed Project's location is relatively ideal, both in regards to the local synergy with the nearby Veolia facility and in respect to current local waste pick-up and the future plans for CleanTech's recycled oil customer base. Alternative 3 would reduce the localized adverse project impacts that would occur near the proposed Project site, but would just cause those adverse impacts to move to the alternate project location; and may actually increase those adverse impacts. In the case of air quality and traffic impacts an alternative location near the Port of Long Beach may create significant and unavoidable impacts.

ES.4 Areas of Controversy/Issues to be Resolved

DTSC completed a Notice of Preparation and held two local public workshops during the public notice period in January, 2014. While there were a few comments received during the public notice period, none of these comments indicated significant environmental issues that could be considered as areas of controversy.

Additionally, this Draft EIR provides a complete analysis of the proposed Project and there are no remaining technical project description issues or environmental review issues left to be resolved.

TABLE ES-1. SUMMARY OF CLASS II IMPACTS AND MITIGATION MEASURES

Resource Area Impact	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
GCC-2	Construction	Conformance with appropriate GHG emissions reduction measures	GCC-2.1: Construction Waste Recycling. The generated construction wastes, specifically concrete and wall board wastes, shall be recycled to the extent feasible given the ability for the wastes to meet necessary quality standards for recycling.	Less than Significant
CUL-2	Construction	Potential discovery of cultural resources	MM CUL-2.1: Management of Unanticipated Discoveries. In the unlikely event that previously unidentified cultural resources are uncovered during project implementation, all work within 20 feet of the discovery will be halted and redirected to another location. The find will be secured, and a cultural resources specialist or designated representative will be contacted immediately. The specialist will inspect the discovery and determine whether further investigation is required. If additional impacts to the discovery can be avoided, the resource will be documented on California Department of Parks and Recreation (DPR) cultural resource records (Form DPR 523) and filed at the South Central Coastal Information Center at California State University, Fullerton (SCCIC-CSUF); no further effort will be required. If additional disturbance to the resource cannot be avoided, the specialist will evaluate the significance and California Register of Historic Resources eligibility of the resource and (if warranted) implement data recovery excavation or other appropriate treatment measures. The methods and results of evaluation or data recovery work at an archaeological find will be documented in a professional level technical report to be filed with the SCCIC-CSUF. and MM CUL-2.2: Monitoring for Native American Cultural Resources. In addition to the requirements of MM CUL 2.1, the Project Owner shall ensure that a Native American monitor be on site during all excavation activities that may encounter native soils below the existing engineered fill layer at the project site. The Project Owner shall coordinate the Native American monitor through the Gabrieleno Band of Mission Indians. (www.gabrielenoindians.org)	Less than Significant
CUL-3	Construction	Potential discovery of human remains	MM CUL-3.1: Treatment of Human Remains. In the highly unlikely event that human remains or suspected human remains are uncovered during construction, all work within 20 feet of the discovery will be halted and redirected to another location. The find will be secured, and a cultural resources specialist or designated representative will be contacted immediately to inspect the find and determine whether the remains are human. If the remains are not human, the cultural resources specialist will determine whether the find is an archaeological deposit and whether Mitigation Measure CUL-2 applies. If the remains are human, the cultural resources specialist will immediately implement the provisions in Public Resources Code (PRC) Sections 5097.9 through 5097.996, beginning with the immediate notification to the Los Angeles County coroner. The coroner has two working days to examine human remains after being notified. If the Coroner determines that the remains are Native American, he or she must contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC, as required by the PRC Section 5097.98, determines and notifies the Most Likely Descendant (MLD).	Less than Significant

TABLE ES-1. SUMMARY OF CLASS II IMPACTS AND MITIGATION MEASURES

Resource Area Impact	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
HAZ-1 and HAZ-2	Operations	Potential accidental releases of hazardous materials from truck spills.	MM HAZ-1.1: Hazardous Materials Transportation Emergency Response Plan. The project proponent shall develop a Hazardous Materials Emergency Response Transportation Plan (HMTERP) and ensure that it is provided to employees who will operate a vehicle used to transport hazardous materials to and from the proposed project site, or otherwise while transporting hazardous materials under employment of the project proponent. Employees should also be trained to provide awareness and familiarization with the requirements of the HMERTP. The HMERTP shall consist of the following: Inspection and Operation Training (e.g., Pre-Travel Inspection prior to operating the vehicle, the use of vehicle controls and equipment, operation of emergency equipment); Methods and procedures for avoiding accidents (e.g., hazardous materials spill), including proper handling procedures of containers or packages consisting of hazardous materials; Safety Training for emergency response (e.g., measures to protect the employee from hazards associated with hazardous materials; emergency contacts for clean-up and containment of hazardous materials, including maintaining placards or stickers with that information in each operating truck; and Procedures for reporting accidents involving a hazardous materials spill or leak. Procedures required for allowing site access to hazardous waste transporters that are not under the direct control of the project proponent (third-party transporters). MM TR-1.1: Traffic Control Plan. See text below for Impact TR-1 and TR-2.	Less than Significant
HYD-1	Construction	Violation of Water Quality Permits	MM HYD-1.1: Demonstrate compliance with water quality permits. Prior to construction, the Project owner shall submit satisfactory evidence to the Department of Toxic Substances Control (DTSC) that all agencies with jurisdiction over the project have been contacted and whether or not each agency requires a permit associated with water resources for the Project. Where a permit is required, the Project owner shall provide a copy of all the conditions required by that agency to DTSC. MM HAZ-1.1: Hazardous Materials Emergency Response Transportation Plan. See text above for Impact HAZ-1 and HAZ-2.	Less than Significant
HYD-6	Construction and Operation	Water Quality Degradation	MM HAZ-1.1: Hazardous Materials Emergency Response Transportation Plan. See text above for Impact HAZ-1 and HAZ-2.	Less than Significant
NOI-1	Construction	Compliance with Municipal Code Requirements for Construction Noise	MM NOI-1.1: Construction Noise Mitigation. In the event exterior construction activities must occur between 7:00 p.m. and 7:00 a.m., CleanTech shall obtain a variance from the City of Irwindale with respect to the requirements set forth in Irwindale Municipal Code Noise Ordinance Section 9.28.110, Part B. MM TR-1.1: Traffic Control Plan. See text below for Impact TR-1 and TR-2.	Less than Significant
NOI-1 and NOI-3	Operation	High Levels of Truck Noise on Public Roads	MM NOI-1.2: Truck Noise Mitigation. California Vehicle Code noise regulations pertaining to the operation of all commercial trucks on public roads shall be complied with. Truck noise will be periodically evaluated and continual enforcements of established routes shall occur.	Less than Significant
TR-1 and TR-2	Construction And Operation	Increased Traffic through Existing Class LOS F intersections and Freeways	MM TR-1.1: Traffic Control Plan. During construction and operation, all heavy truck trips shall only utilize the primary truck route (210 Freeway exiting onto Irwindale Avenue traveling south and turning right onto 1st Street and then onto Martin Road to the Project site). CleanTech shall work with truck operators to minimize deliveries and haul out between the hours of 8:00 am to 10:00 a.m. and 4:00 p.m. to 6:00 p.m. to the extent feasible. In the event the primary truck route is unavailable due to Caltrans, California Highway Patrol, City of Irwindale, or other official closure or detour, CleanTech shall ensure all heavy trucks utilize the contingency truck route (Irwindale Avenue between 1st Street and Arrow Highway, Arrow Highway between Irwindale Avenue and the 605 Freeway). CleanTech shall work with truck operators to minimize deliveries and haul out between the hours of 8:00 am to 10:00 a.m. and 4:00 p.m. to 6:00 p.m. to the extent feasible.	Less than Significant

1. Introduction

1.1 Purpose of the EIR

This Environmental Impact Report (EIR) assesses the environmental impacts associated with the proposed CleanTech Hazardous Waste Facility Permit Project (Project). Agritech International, Ltd. dba CleanTech Environmental, Inc., henceforth referred to as CleanTech or applicant, proposes to develop, construct, and operate the proposed Project. The proposed Project would be comprised of a proposed motor oil recycling facility that would collect, bulk, and transport other associated waste streams, namely waste antifreeze, non-RCRA wastewater, and oil-contaminated solid wastes.

As the lead agency under the California Environmental Quality Act (CEQA), the Department of Toxic Substances Control (DTSC) prepared a Notice of Preparation (NOP) for the Project on December 30, 2013, which identified that preparation of an EIR would be required as part of the permitting process. In compliance with CEQA guidelines, DTSC solicited public and agency comments through the distribution of the NOP. Two EIR scoping meetings were held on January 14, 2014, the first at the Duarte Public Library, and the second at the City of Irwindale Community Center. Following presentations by DTSC, members of the public spoke about a few potential adverse impacts of the Project, including the potential for spill release and ground water impacts. One speaker also noted the Project's potential beneficial impacts. These verbal comments and other written comments received during the meetings and separately during the 33-day public comment period, as well as comments received previously on this Project, were used to help direct the scope of the analysis in this EIR.

1.2 Project History

The applicant submitted their permit application to DTSC on September 1, 2010. DTSC then completed an Initial Study/Negative Declaration (IS/ND) to complete the agency's CEQA obligations for the Project. During the public comment period in November 2010 for the IS/ND, significant comment issues arose that caused DTSC to prepare a Response to Comments document and a revised IS/ND document, with another public comment period. Following the Final Permit Decision for the Project and issuance of the Hazardous Waste Facility (HWF) permit in December 2012, two Petitions for Review were received. The major issue identified in these two appeal documents was the fact that the appellants believed that an EIR should have been prepared for the Project. CEQA requires that an EIR be prepared when a Lead Agency determines that it can be fairly argued, based on substantial evidence, that a project may have a significant effect on the environment (CEQA Sections 21080[d], 21082.2[d]). Additionally, Division 13, Chapter 4, Section 21150.1(a)(3) of the California Public Resources Code and Division 20, Chapter 6.5, Article 9.1, Section 25205.1(d) of the Health and Safety Code set a threshold of 1,000 tons per month as an EIR trigger for hazardous waste treatment facilities. Based upon these requirements and their potential legal interpretations, DTSC, along with the applicant and the two appellants, signed a Stipulation and Order document that vacated the permit, required that an EIR would be prepared for the proposed Project, and dismissed the two Petition for Review appeals.

The major milestone Project history timeline for the Project is as follows:

- Applicant submits permit application – 9/1/2010
- DTSC prepares IS/ND – 11/11/11
- IS/ND public comment period – 11/18/11 to 1/9/12

- DTSC prepares response to comments and revised IS/ND – 5/14/12
- Revised IS/ND public comment period – 5/18/12 to 7/5/12
- Final permit decision – 12/20/12
- EIR initiated with NOP, following agreement with petition to appellants – 12/31/13.

This EIR includes applicant desired changes to the Project description that have occurred since the revised IS/ND was published. This includes the fact that in the interim period, since the publication of the revised IS/ND, other facilities have been permitted, installed and begun operation at the Project site. Removal/relocation of these facilities would be required to install the proposed Project's components. Additionally, the applicant desires to increase the permitted Project's size and throughput given the fact that the Project would no longer be required to have a permit condition to limit the used oil recycling throughput to 1,000 tons per month. The Project Description (Section 2) identifies the applicant's requested changes to the Project's size and throughput.

1.3 Environmental Impact Report Scope

This EIR examines potential short-term and long-term impacts of the Project. These impacts were determined through a rigorous process mandated by CEQA in which existing conditions are compared and contrasted with conditions that would exist once the Project was implemented. The significance of each identified impact was determined using appropriate resource agency Thresholds of Significance. The following categories are used for classifying Project related impacts:

- *Class I* – Significant adverse impacts that cannot be feasibly mitigated or avoided. If the Project is approved, decision makers are required to adopt a statement of overriding consideration, pursuant to CEQA Section 15093, explaining why Project benefits outweigh the unavoidable, adverse environmental effects.
- *Class II* – Significant adverse Impacts that can be feasibly mitigated or avoided. If the Project is approved, decision makers are required to make findings pursuant to CEQA Section 15091 that impacts have been mitigated to the maximum extent feasible by implementing the recommended mitigations.
- *Class III* – Adverse impacts that are less than significant. These impacts do not require that CEQA findings be made.
- *Class IV* – No impact.

The EIR also presents alternatives to the Project, including the "No Project" alternative, and a qualitative assessment of the impacts that would be associated with the implementation of each. Finally, the cumulative impacts of the Project when added to other local proposed or approved projects are evaluated.

1.3.1 Mitigation Monitoring

CEQA requires that a public agency adopt a Mitigation Monitoring and Report Plan (MMRP) for mitigation measures that have been incorporated into the Project to reduce or avoid significant impacts on the environment. The MMRP is designed to ensure compliance during project implementation, as required by Public Resources code Section 21081.6. This EIR includes mitigation measures beyond the permit conditions required by the HWF permit. Therefore, there will be a DTSC MMRP that will be prepared and provided in the Final EIR that will be approved in conjunction with the certification of the Final EIR.

1.4 Environmental Impact Report Organization

This EIR contains an Executive Summary, which presents an overview of the Project and its impacts. This is followed by:

Section 1.0: Introduction contains a summary of the purpose and scope of the EIR.

Section 2.0: Project Description provides details on the proposed Project components and provides a summary analysis for resource areas that had project effects found not to be significant.

Section 3.0: Environmental Setting, Impacts, and Mitigation details environmental setting information, Project impacts, and proposed mitigation measures for a wide range of resources. It includes Section 3.1, which provides an overview of the environmental setting, impacts, and mitigation, as well as the assumptions considered as part of the environmental impact analyses. Resource-specific analyses are included in the following sections:

3.2 – Air Quality and Climate Change
3.3 – Biological Resources
3.4 – Cultural and Paleontological Resources
3.5 – Hazards and Hazardous Materials
3.6 – Hydrology and Water Quality
3.7 – Noise
3.8 – Transportation

Section 4.0: Cumulative Impacts provides a description of the reasonably foreseeable projects located in the vicinity of the Project and the cumulative impacts of these projects in combination with the Project.

Section 5.0: Alternatives Analysis provides a comparison of the Project impacts with those of Project alternatives developed by the applicant and DTSC.

Section 6.0: Other CEQA Considerations identifies the Project's compliance with other applicable CEQA requirements.

Section 7.0: List of Persons and Agencies Contacted lists all of the persons and agencies contacted and consulted relevant to preparation of this EIR.

Section 8.0: List of Preparers identifies the individuals and their roles in preparing this EIR.

Section 9.0: References lists all of the references relevant to preparation of this EIR.

2. Project Description

2.1 Project Overview and Objectives

If the proposed Project is approved and permitted, CleanTech would collect used oil from off-site generators (gas stations, oil changers, auto repair shops, etc.) using tanker trucks and consolidate the used oil in stationary tanks that would be constructed within the existing building at the Project site. The used oil would be filtered and treated by blending, gravity separation, and by adding a chemical reagent if necessary, to remove entrained solids and enhance dehydration, to meet the recycled oil standards. CleanTech would then test and certify the treated used oil as "recycled oil" and ship the certified recycled oil for further treatment, or retain it on-site for additional non-hazardous waste treatment. The Project's proposed maximum monthly used oil throughput is 1,500,000 gallons, or approximately 5,625 tons per month.

CleanTech would also collect used waste antifreeze and non-Resource Conservation and Recovery Act (RCRA) wastewater, such as oily wastewater, in tanker trucks that would be tested and pumped to receiving tanks, as well as collect drums and totes of waste antifreeze and non-RCRA wastewater and store them in a drum storage area. The liquid waste in containers may then be pumped into the appropriate storage/treatment tanks. Additionally, CleanTech would collect drums of oily solid wastes, such as oil/water separation sludge, contaminated soil with oil, oil contaminated containers, etc., and place those drums into the drum storage area. Consolidated waste antifreeze, non-RCRA wastewater, and oil-contaminated solid waste are shipped in bulk off site to a recycling, treatment, or disposal facility. All wastes collected would be hazardous wastes, including any received household hazardous wastes (which would be limited to household generated used oil, non-RCRA wastewater, and waste antifreeze). No non-hazardous solid wastes will be collected, received, generated, or stored at the Project site.

The applicant has proposed to develop an economically viable used oil recycling project in Los Angeles County to collect used oil and then generate and deliver certified recycled oil for beneficial reuse. As a private project, the most basic objectives of the proposed Project include the following:

- Enable CleanTech to collect, test, treat, certify, and transport as much as 1,500,000 gallons per month of used oil as certified recycled oil that can be further treated locally as necessary to efficiently serve a diverse client base, including: clients at the Ports of Long Beach/Los Angeles, recycled base oil market in Azusa, and remote boiler/fuel burners in Nevada and Arizona (such as cement kilns and asphalt plants) and
- Enable CleanTech to collect, bulk, and transport waste antifreeze, non-RCRA wastewater, and other oily solid wastes to meet customer needs.

In addition, the proposed Project meets the following public objectives:

- To allow the reuse of used motor oil, a recyclable waste stream created from a nonrenewable resource, which would:
    - Reduce the need for the production of new fossil fuels,
    - Reduce the associated air pollution emissions related to new fossil fuel production or other forms of used oil disposal,

- Reduce the greenhouse gas emissions/carbon footprint related to new fossil fuel production, oil refining, or related to other forms of used oil disposal, meeting the goals of Assembly Bill (AB) 32, and
- Develop new green technology.

2.2 Location and Setting

2.2.1 Location

The 0.98-acre CleanTech site is located at 5820 Martin Road in the City of Irwindale near the signaled major cross streets of Irwindale Avenue and 1st Street, approximately 0.5 miles South of the 210 Freeway and 1.4 miles East Southeast of the 605 Freeway (See Figure 2-1). The site is also located within 0.25 miles of the Santa Fe Dam Recreation Area. There are no residences located within 0.75 miles from the Project site and the closest school is located over a mile from the Project site.

Local Environment

The Project site is surrounded by other commercial/industrial properties. Beyond these other commercial/industrial properties, further to the west and southwest from the site is the Santa Fe Dam Recreational Area (SFDRA), which is operated by the County of Los Angeles Department of Parks and Recreation. The Project site is located approximately 0.3 miles from the SFDRA Nature Center. The distance to the nearest residential areas are approximately 1 mile to the east and south of the facility and the nearest schools are located more than a mile from the Project site. A list of some of the notable nearby public sensitive receptors is provided below in Table 2-1.

TABLE 2-1. SENSITIVE RECEPTOR LOCATIONS NEAR THE PROPOSED PROJECT SITE

Receptor Name/Type/Description	Distance from Project Site
SFDRA Nature Center	0.3 miles
SFDRA Beach	0.8 miles
City of Irwindale Senior Center/Community Center	1.0 mile
Nearest City of Irwindale Residences, south of site	1.0 mile
Nearest City of Azusa Residences, east of site	1.0 mile
Irwindale Public Library	1.2 miles
Mountainview Elementary School	1.2 miles
Andres Duarte Elementary School	1.3 miles
Mt. Olive High School	1.4 miles
Pleasant View Elementary School	1.4 miles
Paramount Elementary School	1.5 miles
Valleydale Elementary School	1.5 miles
Alice M. Ellington Elementary School	1.5 miles

Source: Google Maps

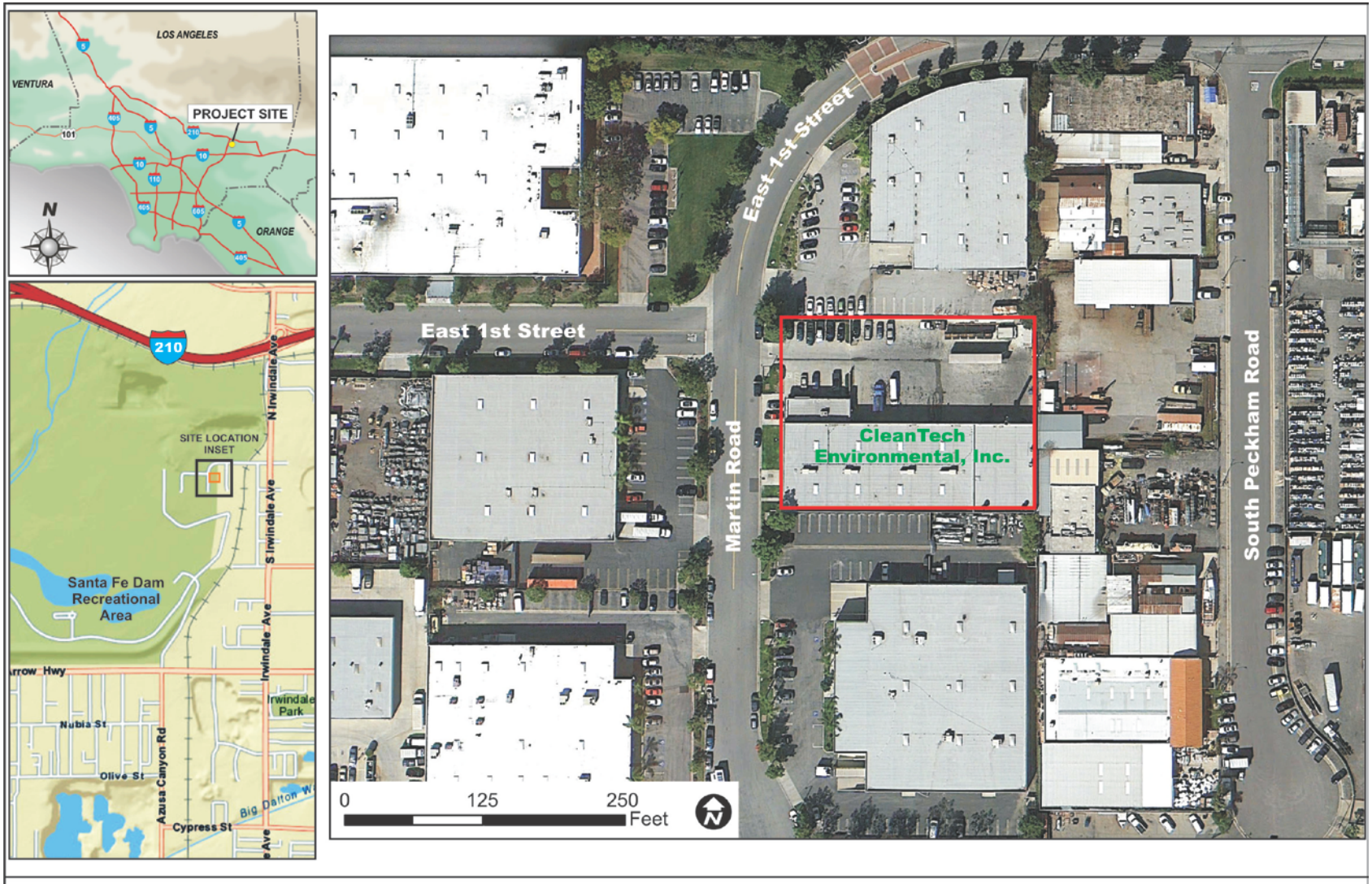


Figure 2-1

Site Location

2.2.2 Setting

Project Site History

Based on a review of available historical aerial photographs the site was undeveloped open land prior up to at least 1968, but between 1949 and 1956 the area just east of the Project site was developed (DEC 2011). The site, or at least the eastern side of the site, was developed in an industrial/commercial use as of 1976, but the specific owners and uses of the Project site prior to 1984 are not fully known. The current building, parking/truck ramp area, and the concrete wall enclosing the internal parking and truck ramp area were permitted during 1982 and were constructed during 1984/1985 (CleanTech 2011, CleanTech 2014). Between 1985 and 2005 Barron Boats Inc., also known as Hallett Boats and Le Barron Fiberglass Accessories occupied the property and used it as a boat repair and manufacturing facility. The building use was separated by a wall on the east side of the building, where the fiberglass lay-up work was performed east of the wall in the smaller section of the building, and the larger western side of the building was used for storage and offices. From 2005 to 2007 the property was vacant, and since 2008 the property has been leased from Nickolas B. Barron Jr. (Barron Boats) to CleanTech. CleanTech has used the site as a fully licensed Hazardous Waste Transporter since that time and in 2013 added an oil filter recycling process and a recycled oil filtering process that are described in more detail below.

Existing Conditions

The Project site currently has two separate operating manufacturing processes, along with empty drum storage, that are currently active at the facility. Figure 2-2 shows the configuration of the Project site as of January 2014. If the proposed Project is approved and permitted, those two processes may be removed from the Project site and relocated to another site, currently not designated, that is expected to be located within 2 miles of the Project site. However, one or both of these two existing processes may be retained at the Project site as the proposed Project is being built in phases; and depending on final Project build-out and space limitations within the building, one or both of these processes may be relocated and retained after final Project build-out within the Project site's building. Alternatively, based on business needs one or both of these existing processes may be relocated within the project site or removed from the project site before the final decision is made on the proposed project. These two processes, both of which have all required permits, do not require hazardous waste treatment permits and do not treat hazardous wastes, although one of these two processes does produce used oil as a byproduct, which is a designated hazardous waste. The two current operating processes are described as follows:

Recycled Oil Filtering

This process filters certified non-hazardous oil to improve the grade of the oil. The operation includes centrifuging, ultra filtration, and media filtering of the oil. The upgraded oil is then stored and shipped to the Ports of Los Angeles/Long Beach areas for further processing and use. This entire operation is conducted within an epoxy-coated concrete floor. This operation also includes a filtering media regeneration system that is comprised of a small thermal oxidizer and associated small cooling tower. This process has obtained all necessary permits, including permits from the South Coast Air Quality Management District (SCAQMD) for the thermal oxidizer system.

As of January 2014, the filtering operation was in a testing/commission phase. When fully installed and operating, it would be capable of processing 700 to 1,000 gallons per hour of oil, and it would operate 2 to 3 shifts per day, 6 days per week. One person per shift is required to operate this process.

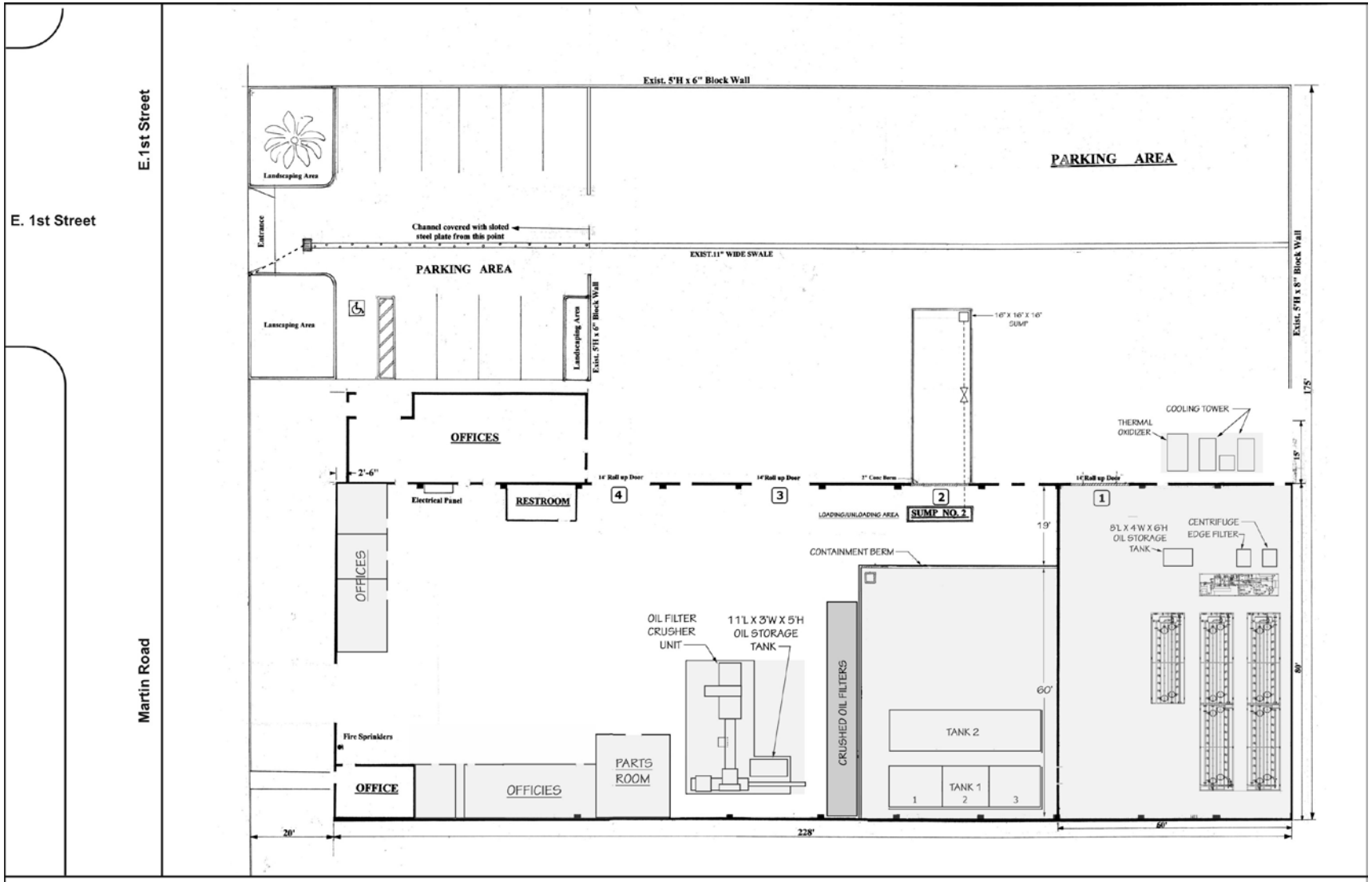


Figure 2-2

Existing Site Layout

As part of the installation of the recycled oil-filtering process, several major improvements were made inside of the building on the Project site, some of which would continue to be used as part of the proposed Project. These improvements include the construction of a concrete diked area for four 20,000-gallon storage tanks (two of the tanks are currently installed), a truck loading area sump, and truck ramp improvements for the truck loading area that is adjacent to the storage tanks. The specifics of these improvements include the installation of an epoxy-coated and Visqueen-lined 8-inch-thick double-crisscrossed steel rebar reinforced concrete floor in the diked tank area, and the completion of 24-inch-high dikes surrounding this tank area where existing building walls do not exist. The epoxy coating is applied on the concrete floor, the inner dike walls, and the existing building walls in the containment area to seal the concrete and prevent the migration of any spills where they otherwise may not be easy to discover.

Used Oil Filter Crushing Operation

This operation takes drained oil filters, crushes/compacts them, and disposes of them as scrap metal. Additional used oil generated from the process is also collected and shipped for recycling. The entire crushing operation is contained within a welded-steel diked area. Approximately 100 tons per month of scrap metal is generated and shipped to metal recyclers. Additionally, approximately 15,000 gallons of used oil is generated per month and shipped out as non-RCRA Hazardous Waste (CA Waste Code 221). This operation requires one operator per shift and 2 to 3 shifts are run per day, 6 days per week.

As a worst-case condition for the purposes of this environmental analysis, the existing recycled oil filtering and used oil crushing operations are assumed to be removed up to 60 days prior to the construction of the proposed Project's facilities after all required pre-construction permits, including the Department of Toxic Substances Control (DTSC) Hazardous Waste Facility permit, have been obtained. This is considered a worst-case condition due to the more extensive construction/demolition requirements and the additional used oil and recycled oil transportation requirements during operation that would otherwise be unnecessary if these two operations were to remain at the site. All necessary permitting for these two processes would be completed for their new operating site prior to their removal and relocation.

The proposed Project is not strictly replacing the existing processes, but due to space limitations causing their removal and relocation from the Project site. So for the determination of Project impacts the proposed Project is considering in full without offsetting any of the effects of the current operations, such as traffic trips, that would be removed as part of the proposed Project. While these impacts would be removed from the site they would continue to occur at the new location for these existing operations which is proposed to be within 2 miles of the Project site.

2.3 Project Components

The proposed Project would involve the construction of a used oil recycling facility and other waste collection facility, which would be entirely constructed within the existing 0.98-acre CleanTech site. The major components of the proposed facility, as shown in Figure 2-3, are described in more detail below and include the following:

- Two new, three total, truck unloading/loading bays and epoxy-coated Visqueen-lined steel rebar reinforced concrete sumps;
- Tank containment areas with epoxy-coated Visqueen-lined steel rebar reinforced concrete slabs and lined concrete sumps;

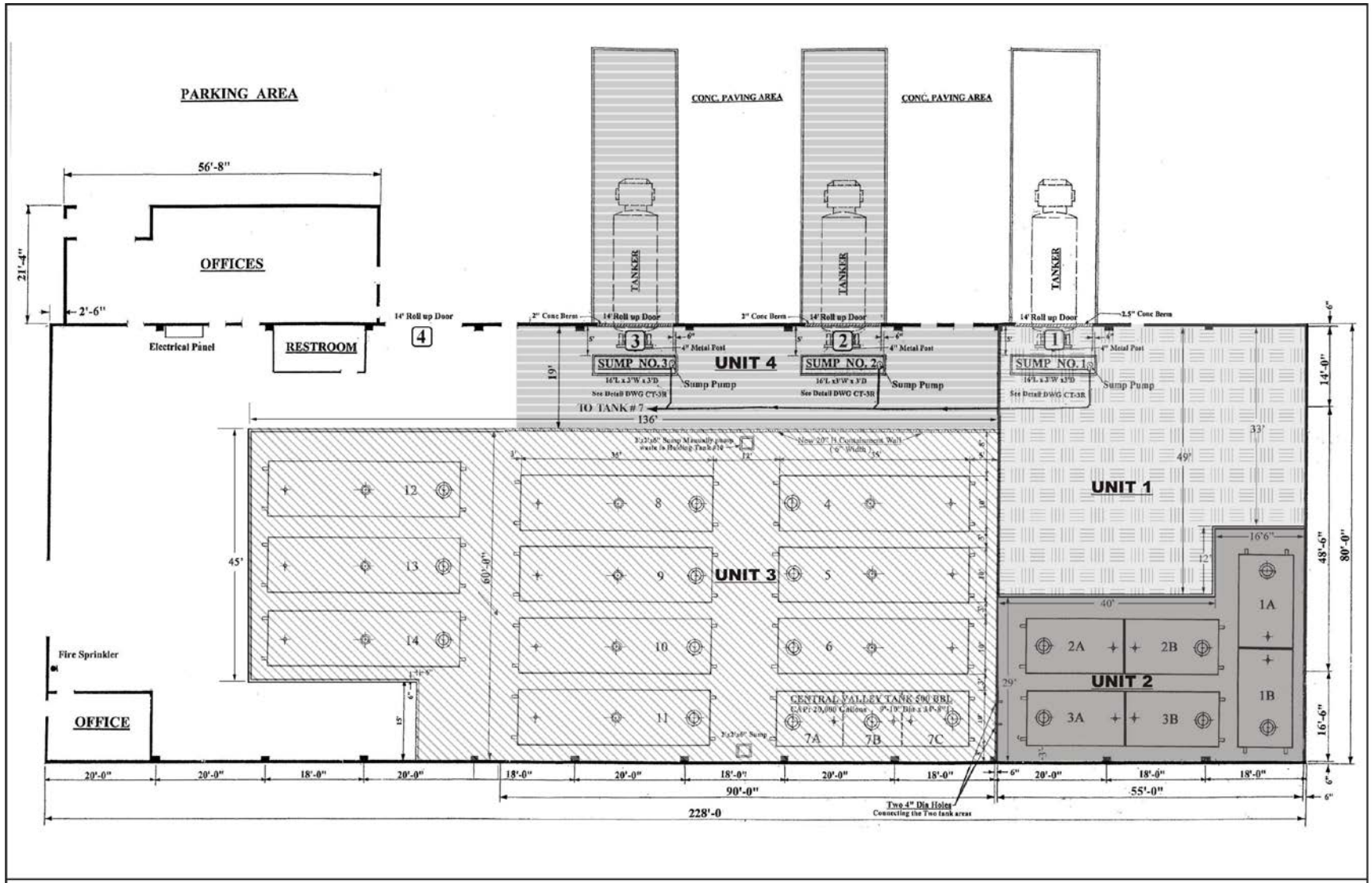


Figure 2-3

Proposed Site Layout

- Twelve new, fourteen total, 20,000-gallon storage tanks (some with multiple compartments); and
- Removal or relocation of the existing recycled oil filtering operation and oil filter crushing operation.

The building area has an internal wall, which is used as a demarcation between Process Area 1 and Process Area 2. All waste transfer and treatment operations would occur inside of the building. The description of these two process areas and the process units contained in each is provided below.

Process Area 1

Process Area 1, which is on the east side of the building, and is separated from the rest of the building by a wall, completely contains two process units identified as Unit 1 and Unit 2. This process area contains the drum storage and transfer area, drum and material processing area, one 10- to 15-yard roll-off bin (Unit 1) and three storage/transfer processing tanks (Unit 2). This process area would receive all of the incoming drummed/containerized waste materials (Unit 1), and would also normally receive used oil from small quantity containers delivered on box trucks or from third party collectors (Unit 2). Bulk waste deliveries may also be received into the Unit 2 tanks.

Unit 1 – Drum Storage Area

This area is designed to contain, handle, and process up to 384 drums, a mixture of drums and totes ranging in size from 5-gallon to 55-gallon drums, 250-gallon to 330-gallon totes, cubic-yard boxes, and one 10- to 15-cubic-yard roll-off bin. Drums, totes, boxes, and bins may be stored for up to 90 days prior to being shipped off site. The total storage volume of this Unit would be 21,120 gallons.

This Unit is also used for shipping and receiving, loading and unloading of materials, solids, and liquids transfer of materials from drum to drum, drum to tote, tote to drum, drum/tote to process tanks, drum to roll off, tanker to receiving tank/storage tank, receiving tank/storage tank to tanker, etc. This unit would include a steel-grated, epoxy-coated, 7-inch-thick steel rebar reinforced and Visqueen-lined concrete sump (sump No. 1) with a capacity of approximately 1,100 gallons. The truck unloading operations will occur directly above this sump. Ramp No. 1, which serves as part of the Process Area 1 loading/unloading area does not require permitting and is not permitted as part of Unit 1 or Unit 4, because no truck to truck transfer will occur on ramp No. 1 and truck loading and unloading activities alone do not require a hazardous waste facility permit. However, the loading and unloading activities that do occur through ramp No. 1, including the throughput and truck traffic associated with this ramp, are included in the assessment of the proposed Project's impacts.

Unit 2 – Multi-Compartment Tanks

This Unit will contain three 20,000-gallon above-ground steel storage tanks (Tanks 1 – 3) with an operating capacity of 20,000 gallons each. The total volume of liquid storage in this unit would be 60,000 gallons. Each 20,000-gallon storage tank is sub divided into two separate compartments, identified as follows:

<u>TANK #1:</u>

a. Compartment 1A: 10,000-gallon capacity, contents Used Anti-Freeze
b. Compartment 1B: 10,000-gallon capacity, contents Non-RCRA Wastewater

TANK#2:

a. Compartment 2A: 10,000-gallon capacity, contents Used Oil
b. Compartment 2B: 10,000-gallon capacity, contents Used Oil

TANK#3:

a. Compartment 3A: 10,000-gallon capacity, contents Used Oil
b. Compartment 3B: 10,000-gallon capacity, contents Used Oil

Process Area 2

Process Area 2 contains two Units identified as Unit 3 and Unit 4. This process area is located inside of the existing site building adjacent to and west of Process Area 1. This process area contains the general bulk processing area, and storage and spill containment tank area. The total volume of liquid storage in this process area will be 220,000 gallons.

Unit 3 – Tank Storage Area

This Unit will contain eleven 20,000-gallon tanks (Tanks 4 – 14). Each tank has an operating capacity of 20,000 gallons. These tanks can be described as follows:

a. Tanks 4, 5, 6, 8, 9, 10, 11, 12, 13, and 14 are 20,000-gallon tanks that have a single compartment and are used for the blending, bulking, and storage of used oil and/or certified oil.
b. Tank 7, a 20,000 gallon tank with three separate compartments 7A, 7B, and 7C would be used for the storage of used antifreeze and non-RCRA wastewater, and for the collection of liquid waste from process spills collected from any of the various sumps located in the process areas, stormwater collected from exterior areas, etc.

The tanks that will be designated as Tanks 6 and 7 have already been installed at the site and are currently part of the existing recycled oil filtering operation. These two existing tanks will be repurposed for use as noted above.

Unit 4 – Loading and Unloading Area

This process unit includes the shipping and receiving, loading, and unloading of materials, solids, and liquids transfer of materials from tanker to receiving tank/storage tank, receiving tank/storage tank to tanker, tanker to tanker, and other truck to truck transfers. This unit is comprised of two unloading ramps/bays that each have a steel-grated, epoxy-coated, 7-inch-thick steel rebar reinforced and Visqueen-lined concrete sump with a capacity of approximately 1,100 gallons. Ramp and sump No. 2 have already been constructed, while ramp and sump No. 3 would be constructed as part of the proposed Project. The truck unloading operations will occur directly above these sumps.

Process Area 1 and Process Area 2 would both be located within the existing building and would be operated in a concrete epoxy-coated containment area. All shipping and receiving areas would be located within the facility and would be operated and contained within a diked and/or bermed concrete, epoxy-coated containment area (please see Figure 2-4). The entire area outside of the building, within the concrete service yard, is fenced. Employee parking is located outside of the fenced process area.

Transfer of exempt drummed waste is also performed at the facility. For this operation, the waste remains in the same container in which it was transported to the facility. The waste containers remained closed at all times. The wastes do not remain at the facility for more than 10 days. Additionally, the CleanTech Environmental facility is not listed as the final destination facility on the manifest of these wastes.

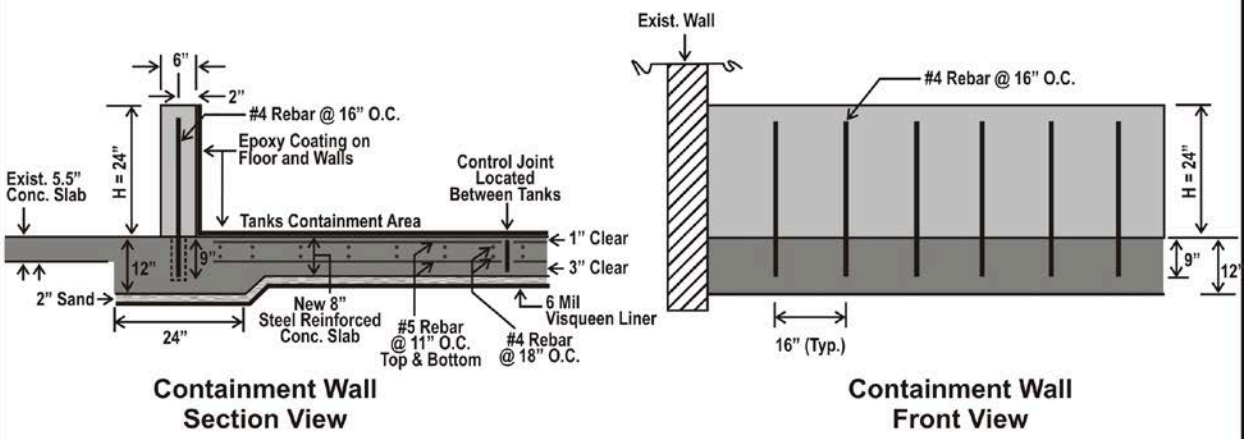


Photo of Existing Containment Area

Figure 2-4

Tank Containment Design

Trucks will bring in the unprocessed wastes from various locations in the general site area (San Gabriel Valley) and surrounding areas (Fresno and San Diego). Most of the processed wastes, including the certified recycled oil, would be trucked to the nearby Veolia facility or other nearby facilities for further processing, to the Port of Los Angeles/Port of Long Beach, or in the case of the recycled oil, to more distant locations outside of California for use as a fuel. The primary transportation route will be to and from the 210 Freeway via Irwindale Avenue, 1st Street, and Martin Road to the Project site.

2.4 Facility Construction

The construction of the facility would occur in three main phases, where some of the permitting and construction actions would overlap to reduce the overall construction schedule to 6 or 7 months assuming all phases are built out sequentially. These construction phases are described as follows:

Phase 1

- The re-permitting and re-location of the recycled oil filtering system and oil filter crushing equipment[1].
- Permitting and completing the construction work for new concrete work and diking of the Drum Storage Area, additional tank storage area diking, new epoxy coated/Visqueen lined/double crisscrossed steel rebar reinforced concrete flooring, installing storage tanks 1, 2, 3, 4, and 5, and installing truck ramp and epoxy coated/Visqueen lined/steel rebar reinforced concrete sump No. 1.
- Converting existing offices to a laboratory for testing and monitoring incoming and outgoing waste streams.

Phase 2

- Permitting and construction of additional tank storage area diking, new epoxy coated/Visqueen lined/double crisscrossed steel rebar reinforced concrete flooring, installing storage tanks 8, 9, 10, and 11, and installing truck ramp and epoxy coated/Visqueen lined/steel rebar reinforced concrete sump No. 3.

Phase 3

- Permitting and construction of additional tank storage area diking, new epoxy coated, Visqueen lined, double crisscrossed steel rebar reinforced concrete floor, and installation of storage tanks 12, 13, and 14.

Please see Figure 2-3, provided earlier in this section, to identify the building locations of the numbered ramp/sump and tanks identified above. Depending on demand, the construction of the Phase 3 elements may occur at a later time when demand justifies the construction of the additional tank capacity, which would reduce the overall construction schedule to no more than 5 months. Table 2-2 identifies a general schedule for the construction phases and sub phases. The on-site construction work will occur 5 days per week (Monday through Friday), normally 8 to 10 hours per day (7:00 a.m. to 5:00 p.m.), or more as needed during the completion of the concrete work.

Construction permitting for Phase 1 may start as soon as DTSC certifies this Environmental Impact Report (EIR) and finalizes the Hazardous Waste Facility (HWF) permit, which could be as early as the fourth quarter of 2014. A more detailed construction schedule is provided with the air quality emissions calculations presented in Appendix A.

[1] This is the worst-case assumption. These two existing processes may actually be retained/relocated on site, or they may be relocated at any time before the Project is approved or anytime while the project is being phased in at the site.

The types of off-road construction equipment needed to complete the Project's construction work with their expected duration of activity by phase are shown below in Table 2-3. Appendix A provides additional assumptions related to equipment activity by sub phase, the excavation requirements by phase, and other assumptions related to the daily overlap in the scheduling of this off-road equipment.

Traffic trip estimates for trucks and worker vehicles during construction, provided below in Table 2-4 and summarized again in the Traffic and Transportation analysis (Section 3.8), were estimated based on construction sub phase activity estimates and other assumptions provided by the applicant and estimated by Aspen.

TABLE 2-2. CONSTRUCTION SCHEDULE

Activity	Month						
	1	2	3	4	5	6	7
Phase 1 Permitting	XXXX	XXXX					
Phase 1 Construction			XXX				
Phase 2 Permitting			XXXX	XXXX			
Phase 2 Construction					XXX		
Phase 3 Permitting					XXXX	XXXX	
Phase 3 Construction							XXX

Source: CleanTech 2013/2014

TABLE 2-3. CONSTRUCTION OFF-ROAD EQUIPMENT ASSUMPTIONS

Phase/Equipment Type	Horsepower	Total Days	Total Hours
Phase 1			
Concrete Saw	35	5	36
Bobcat	75	4	32
Backhoe	127	3	24
Scissor Lift	Electric	4	32
Phase 2			
Concrete Saw	35	4	32
Bobcat	75	3	24
Backhoe	127	3	24
Scissor Lift	Electric	4	32
Phase 3			
Concrete Saw	35	2	16
Bobcat	75	1	8
Backhoe	127	2	16
Scissor Lift	Electric	4	32

Source: CleanTech 2013/2014

TABLE 2-4. CONSTRUCTION VEHICLE TRIP ASSUMPTIONS

Vehicle Type	Maximum Daily	Total
Passenger	10	341
Delivery (non-Heavy Duty Trucks)	4	148
Heavy Duty Trucks	10	88

Source: Calculated using data from CleanTech 2013/2014

The detailed construction trip estimate information by vehicle type is provided in Appendix A.

2.5 Facility Operation

The proposed new facility, as described above in Section 2.3, would be operated 24 hours per day, 6 days per week (Sunday through Friday), 52 weeks per year. A total of 20 employees, not including truck drivers, will be required for the operation of these new processes and associated office support work.

Trucks will bring in the unprocessed wastes from various locations in the general site area (San Gabriel Valley) and surrounding areas (Fresno and San Diego). Most of the processed wastes, including the certified recycled oil, would be trucked to the nearby Veolia facility or other nearby facilities for further processing, or to the Port of Los Angeles/Port of Long Beach, or in the case of the recycled oil to more distant locations outside of California for use as a fuel.

2.5.1 Process Description

The process starts prior to picking up the wastes and ends upon their acceptance after being shipped off site. Figure 2-5 provides a basic process flow diagram that illustrates the process flow for each of the waste streams from the point of waste pickup to the point of shipping the products and wastes off site. The specific types of hazardous wastes that will be accepted with their California Hazardous Waste Codes are provided below in Table 2-5. No non-hazardous solid wastes will be accepted.

TABLE 2-5. LIST OF HAZARDOUS WASTE TYPES

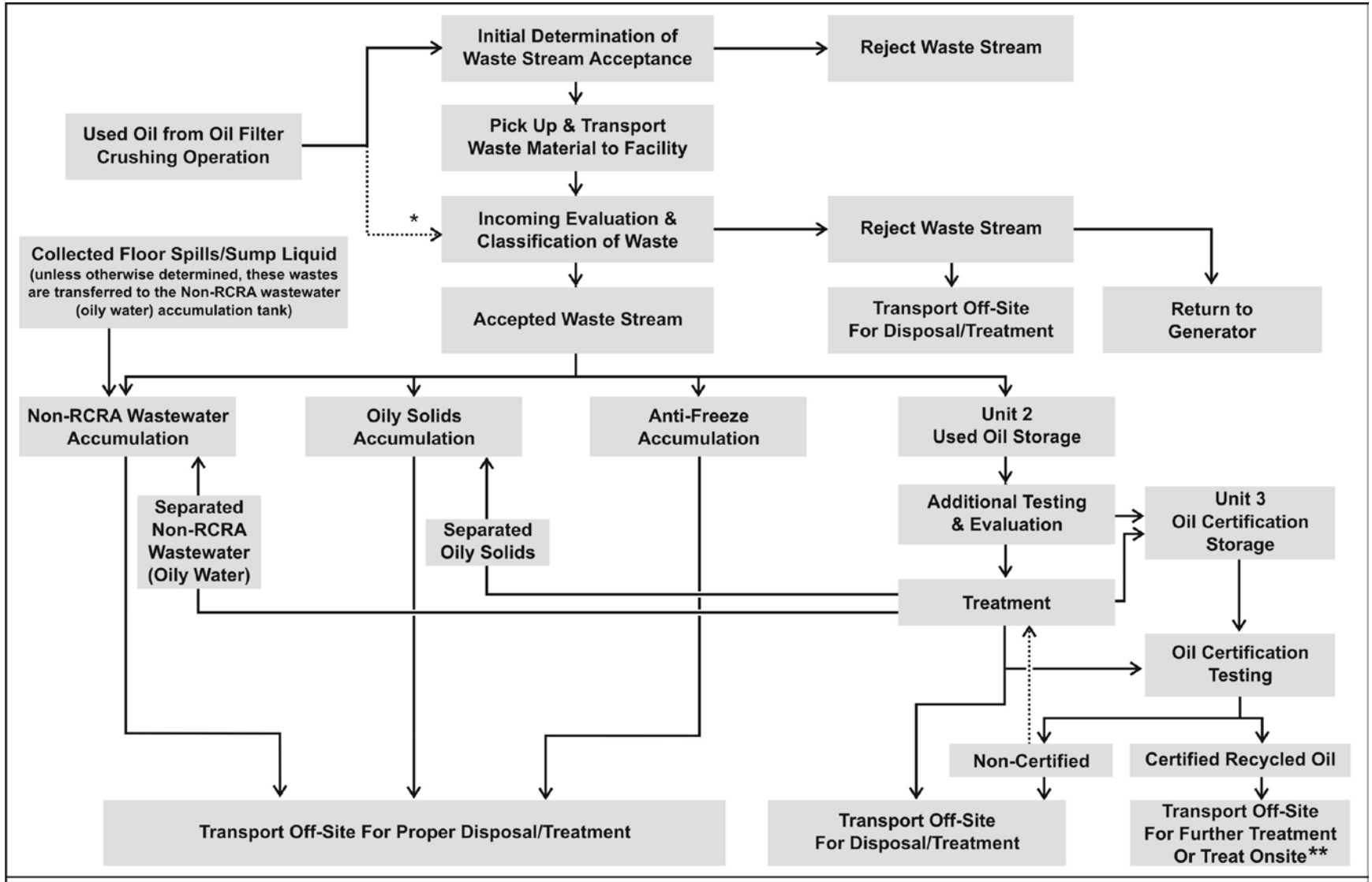
California Waste Code	Common Name of Received Waste Type
133	Non-RCRA Wastewater or Used Antifreeze (>10% total organic residue)
134	Non-RCRA Wastewater or Used Antifreeze (<10% total organic residue)
135	Non-RCRA Wastewater or Used Antifreeze (unspecified composition)
221	Used Oil
222	Oily Solid Waste or Non-RCRA Wastewater
223	Oily Solid Waste or Non-RCRA Wastewater
241	Oily Solid Waste or Non-RCRA Wastewater
343	Used Antifreeze (unspecified composition)
352	Oily Solid Waste
491	Oily Solid Waste or Non-RCRA Wastewater
512	Contaminated Drums (Empty Containers >30 gallons, contaminated by the other listed wastes)
513	Contaminated Drums (Empty Containers <30 gallons, contaminated by the other listed wastes)
612	Used Oil, Non-RCRA Wastewater, or Waste Antifreeze (from household waste collection)

Sources: DTSC 2011, CleanTech 2014

The California hazardous waste codes noted above can cover a broader spectrum of wastes than those that would be allowed to be received by the proposed Project. However, the proposed Project will be limited by permit to only be allowed to receive the specified common waste names noted above. All wastes received or generated on site will be shipped out again for further processing and/or disposal. No waste streams will be disposed at the Project site. The description of the process for each waste stream is as follows:

Used Oil

The Used Oil, after a determination of waste stream acceptance, will be picked up from the waste generator site by truck and transported to the Project site. The majority of this waste stream will be picked up by tanker trucks, but a small amount will also be trucked to the site in drums. Once at the Project site, the used oil will be tested for an initial evaluation and classification.



*This flow would occur if the oil filter crushing operation remains onsite.

**Onsite treatment of certified recycled oil would occur if the existing recycled oil filtering operation remains onsite.

Source: Clean Tech, 2014.

Figure 2-5
Process Flow Diagram (Bulk and/or Drummed Materials)

If the used oil does not meet specifications that would allow it to be certified as recycled oil, then the waste stream will be returned to the generator or re-manifested and shipped to an appropriate permitted hazardous waste treatment or disposal facility. If accepted, then the used oil will be pumped to the storage tanks in Process Unit 2 or Unit 3. From Process Unit 2, depending on the oil specifications determined from additional testing and evaluation, the oil will then be treated as necessary and be pumped to the oil certification storage tanks within Process Unit 3. The blended and bulked used oil in the Process Unit 3 tanks will undergo further testing to determine if the used oil meets recycled oil specifications, and if necessary, the oil will undergo additional treatment and be retested. The used oil that meets the recycled oil specifications will be hauled away as certified recycled oil for further processing. Used oil that cannot be treated on site to meet used recycled oil specifications will be hauled away to an appropriate permitted hazardous waste treatment facility for more aggressive treatment needed to meet recycled oil specifications. Careful initial waste stream acceptance procedures will minimize the amount of used oil processed at the facility that cannot meet recycled oil specifications to a very low percentage of the used oil processed.

Treatment of the used oil will be limited to the separation of the oil, solids, and water. This may be performed using simple gravity settling and draining of higher specific gravity solids and water that separate below the used oil at the bottom of the storage tanks, or may involve the use of a room-temperature demulsifier to aid in that separation prior to removal of the water and solids. The separated solids and water will be collected and will be sent to the oily solid waste and non-RCRA wastewater waste streams, respectively. The solids will end up in drums placed in Process Unit 1, while the oily water will be placed in either a Process Unit 2 or a Process Unit 3 tank (Tank 1B or Tank 7) or drums that will be stored in Process Unit 1. In addition to these two simple treatment processes, the used oil will undergo simple filtering upon initial receipt to remove any large solid debris that may exist in the received used oil.

Waste Antifreeze

The waste antifreeze, after a determination of waste stream acceptance, will be picked up from the waste generator site by truck and transported to the Project site. Once at the Project site, the waste antifreeze will be tested for an initial evaluation of acceptance. If the waste antifreeze does not meet acceptable specifications, then it will be returned to the generator or re-manifested and shipped to an appropriate hazardous waste treatment facility. If accepted, then the waste antifreeze will be pumped to a storage tank in Process Unit 2 or 3 (Tank 1A or Tank 7). Once the waste antifreeze in a tank reaches a predetermined level, the bulked waste antifreeze will be transported off site in a tanker truck for disposal or processing. Waste antifreeze would not be treated at the Project site.

Non-RCRA Wastewater

This waste stream will be collected in a manner similar to that noted above for waste antifreeze and it will also be generated on site as part of site clean-up activities and from the rainwater collected from the loading and unloading ramps. Again, similar to the waste antifreeze, this waste stream will be bulked and then transported for proper disposal. Non-RCRA wastewater would not be treated at the Project site.

Oily Solid Waste

This waste stream is comprised of oily solid wastes received in drums and totes, and solids generated in the used oil water/solids separation treatment process. These wastes will be stored in the Process Unit 1 drum storage area and will be shipped off site for treatment or disposal. Oily solid wastes would not be treated at the Project site, but they may be bulked up into roll-off boxes when applicable.

2.5.2 Waste Throughput

The estimated average and maximum monthly throughputs for each of the waste streams is provided below in Table 2-6.

TABLE 2-6. AVERAGE AND MAXIMUM MONTHLY WASTE THROUGHPUT ESTIMATES

Waste Type	Average Monthly Throughput in Gallons (Tons)	Maximum Monthly Throughput in Gallons (Tons)
Used Oil	1,000,000 (3,750)	1,500,000 (5,625)
Waste Antifreeze	45,000 (208)	60,000 (278)
Non-RCRA Wastewater	20,000 (83)	35,000 (146)
Oily Solid Waste	13,750 (57)	21,120 (88)

Source: CleanTech 2013/2014

These waste throughput volumes are based on the applicant's current estimates for the redesigned Project. The oily solid waste estimates are based on the estimate number of 55 gallon drums handled per month, which on average is estimated to be 250 drums a month with a maximum of 384 drums a month. The tonnage throughput estimates are based on the following material densities:

- Used Oil – 7.5 lbs./gallon
- Waste Antifreeze – 9.25 lbs./gallon
- Non-RCRA Wastewater – 8.34 lbs./gallon
- Oily Solid Waste – 8.34 lbs./gallon (this is considered an average value that lies between denser oil contaminated soil and less dense oil contaminated rags and assumes not all drums/totes may be completely full when received). A maximum of 384 drums per month would be received.

2.5.3 Traffic Estimates

The trucking trip estimates for the received wastes and the processed waste load-out are based on the assumptions provided below in Table 2-7.

TABLE 2-7. WASTE STREAM TRUCK UNLOADING AND LOADING TRIP ASSUMPTIONS

Waste Type	Received Quantity	Load-Out Quantity
Used Oil	2,500 gallons/trip	6,400 gallons/trip
Waste Antifreeze	300 gallons/trip	6,000 gallons/trip
Non-RCRA Wastewater	250 gallons/trip	6,000 gallons/trip
Oily Solid Waste	10 drums/trip	88 drums/trip

Source: CleanTech 2013/2014

Used oil and waste antifreeze are received together on a single truck load, and the non-RCRA oily wastewater and oily solid waste are received together on a single truck load. Using the maximum waste throughput assumptions provided above in Table 2-6, the truck trip assumptions provided above in Table 2-7, and the existing baseline waste stream volumes/truck trips (see Appendix A for the baseline/current truck trip estimates), the incremental increase in truck trips (maximum daily, weekly, monthly, and annual) can be estimated for each waste stream and this estimate is shown in Table 2-8.

TABLE 2-8. MAXIMUM INCREMENTAL TRUCK TRIP ASSUMPTIONS

Waste/Trip Type	Daily	Weekly	Monthly	Annual
Used Oil/Waste Antifreeze Receipt	16	77	337	4,050
Used Oil Load-Out	6	30	131	1,583
Waste Antifreeze Load-Out	0	2	10	120
Non-RCRA Wastewater/Oily Solid Waste Receipt	1	5	24	293
Non-RCRA Wastewater Load-Out	0	0	2	23
Oily Solid Waste Load-Out	0	1	3	33
Totals	23	115	507	6,102

Source: Calculated using data from CleanTech 2013/2014

Table 2-8 assumes that the maximum daily trips are based on truck receipt/load-out occurring 5 days per week and 21 days per month. The use of 5 days per week, rather than the normal 6 days per week operating schedule is a conservative assumption used to estimate the maximum daily trips. This table provides the number of round trips, which for one-way trip estimate purposes, needs to be doubled. Also, the type of truck assumed changes with the size of the load. Trips with load sizes assumed to be 2,750 gallons or greater are assumed to be completed using trucks classified as heavy duty (or Heavy-Heavy Duty based on SCAQMD emission factor classifications), while trips with load smaller than 2,750 gallons are assumed to be completed using trucks classified as medium duty (or Delivery based on SCAQMD emission factors classifications).

Personal vehicle use for the proposed Project is assumed to be equal to the number of increased personnel shifts (no rideshare or public transportation use is assumed for this Project site). The estimated maximum daily, weekly, monthly, and annual personal vehicle round trips are as follows:

- 17 daily trips
- 99 weekly trips
- 434 monthly trips
- 5,208 annual trips

2.5.4 Personnel Training

CleanTech will train all employees depending on their job title and require annual refresher training (CleanTech 2014). Specific training elements may include:

1. Hazardous Waste Operations and Emergency Training Course (HAZWOPER), 8 or 24/40 training courses,
2. Permit Required Confined Space Entry,
3. Contingency Plan,
4. Evacuation Procedures,
5. Spill Prevention Control and Countermeasure Plan,
6. Department of Transportation Related Training,
7. Hazard Communication, and
8. Stormwater Pollution Prevention.

All employees would undergo training on evacuation procedures and hazard communication. Training records will be maintained at the site and maintained for the operating life of the facility.

2.6 Decommissioning

Several factors would determine the life expectancy of the proposed Project, the most critical of which is the continued demand for the recycled oil product. The proposed Project has a life expectancy of 30 years. If there is continued demand for recycled oil and there are no significant technological advances or regulatory changes that would affect the design of or need for the Project, outdated or worn facility components, such as the pumps, pipes, and tanks would be replaced or upgraded in order to keep the Project operational beyond this 30-year Project life.

When the proposed Project is decommissioned, all facilities that make up the proposed Project would be dismantled and removed in accordance with all applicable City of Irwindale, Los Angeles County, State, and federal laws. The impacts of the decommissioning would be similar to those of Project construction, with assumptions that over time certain impacts may decrease due to technological improvements (such as air pollutant and GHG emissions impacts), while other impacts may increase due to changes in the project setting (such as traffic impacts).

The applicant's Part B permit application includes both a facility closure plan, with a closure cost estimate, and a section on financial assurance that states CleanTech will maintain financial assurance, in compliance with the requirements of 22 CCR 66264.143, for an amount equal to or greater than the current closure cost estimate, which will be updated annually as required per 22 CCR 66264.142(b). Documentation demonstrating financial assurance will be provided to DTSC at least 60 days prior to receiving wastes regulated under this HWF permit.

2.7 Project Mitigation

2.7.1 Applicant Proposed Measures

The applicant has not proposed any measures beyond those necessary to comply with existing laws, ordinances, standards, and regulations and the measures that will be required in the HWF Permit to reduce impacts during the proposed Project's construction or operation.

2.7.2 Hazardous Waste Facility Permit Conditions

This Project previously obtained an HWF permit in December 2012, which was subsequently vacated by the July 15, 2013 DTSC Stipulation and Order document after the permit was appealed in two separate Petitions for Review (DTSC 2012; Cable Gallager 2013; Truman and Elliot 2013; Lewis et. al. 2013). The basic design of the Project is not changing, so the general requirements and conditions of the withdrawn permit are likely to remain unchanged. Those requirements are summarized below in Table 2-9.

TABLE 2-9. EXPECTED CLEANTECH HWF PERMIT CONDITIONS

Permit Condition Type	Permit Condition Description
General Permit Conditions	
Permit Application Documents	This condition references the applicant's Part A and Part B permit application and by reference makes them and the Project as described in those documents part of the permit.
Effect of Permit	This condition provides sub-conditions that require permittee compliance with other conditions within the permit, identifies permittee liabilities, and allows DTSC to change requirements as regulations change.
Compliance with the California Environmental Quality Act (CEQA)	This condition will note that the Project has complied with CEQA requirements through the completion of this EIR.
Access	This condition provides requirements for the applicant to provide full access to the facility, facility personnel, and facility records at DTSC's discretion to allow DTSC to ensure compliance with the permit and related laws, ordinances, regulations and statutes.
Permit Unit Conditions	
Unit 1 – Drum Storage Area	This established the Drum Storage Area as Unit 1 and provides a physical and activity description, as well as the maximum storage capacity and allowable waste types, for the unit. Unit specific conditions include: 1. All accepted waste must pass the paint filter test (EPA Method 9095), 2. Minimum 30 inch aisle space, and 3. Only wastes of the same type may be consolidated.
Unit 2 – Multi-Compartment Tanks	This established the waste receiving Multi-Compartment Tanks as Unit 2 and provides a physical and activity description, as well as maximum storage capacity and allowable waste types, for the unit. Unit specific conditions include: 1. Waste storage will be limited to used oil, waste antifreeze, and non-RCRA wastewater. 2. Allowable changes in designated tank usage. 3. Tank integrity certification requirements, leaking tank requirements, and tank recertification requirements.
Unit 3 – Tank Storage Area	This established the tank storage and treatment area as Unit 3 and provides a physical and activity description, as well as maximum storage capacity and allowable waste types, for the unit. Specific special conditions include: Waste storage will be limited to used oil, waste antifreeze, and non-RCRA wastewater. 1. Waste treatment is limited to blending, gravity separation, precipitation, dehydration with Emulsion Control ECO 70BC or similar product, and related specific conditions. 2. Recycled oil certification requirements. 3. Tank integrity certification requirements, leaking tank requirements, and tank recertification requirements.
Unit 4 – Loading and Unloading Area	This established the Loading and Unloading Area as Unit 4 and provides a physical and activity description, as well as maximum storage capacity and allowable waste types, for the unit.
Used Oil – Total Halogen Testing	These conditions define the total halogen testing requirements and the related requirements for waste acceptance.
Special Permit Conditions	
Used Oil – Polychlorinated Biphenyls (PCBs) Testing	These conditions define the PCBs testing requirements and the related requirements for waste acceptance.
Non-RCRA Wastewater	These conditions specify the waste acceptance and recordkeeping requirements for non-RCRA wastewater.

TABLE 2-9. EXPECTED CLEANTECH HWF PERMIT CONDITIONS

Permit Condition Type	Permit Condition Description
Authority to Construct	These conditions require notice and details of facility construction, notice of impending operation, notice of any deviations in the construction plans from those submitted as part of the permit application, and submittal of as-built drawings within 120 days of the start of operation.
Other Special Permit Conditions	There are nearly twenty additional Special Permit Conditions expected to be included in the HWF permit including: 1. General waste acceptance, sampling, transfer, storage, treatment, throughput, and recordkeeping conditions, and related definitions. 2. Facility employee training requirements. 3. Rainwater and wash water collection and testing requirements. 4. Truck transfer leak containment requirements. 5. Waste management unit spill containment monitoring, notification, and repair requirements.
Corrective Action Conditions	These conditions identify the permittees required corrective actions if previously unknown site contamination is discovered.

Source: DTSC 2012

The HWF permit conditions include reference to several tables located after the conditions that include waste screening requirements, tank size/volume limits, treatment batch size limits, allowable waste stream lists, and purity standards for recycled oil. The specifics of the HWF permit conditions and these associated tables will be revised as necessary for the current project description and design and will be based on compliance with appropriate rules and regulation in force at the time the permit is completed. The permit application (Part A and Part B) includes additional description of the Project's design elements, such as containment and other safety features, which by reference become part of the HWF permit.

The HWF permit will be publically noticed and will be available for review and comment concurrent with the Draft EIR, both at the Project's document repositories at the Irwindale Public Library, DTSC's Berkeley office, and online at DTSC's EnviroStor website (http://www.envirostor.dtsc.ca.gov/public/).

2.8 Project Approvals

This EIR is being prepared to assist DTSC in making decisions regarding the approval of the proposed Project's HWF permit. Table 2-10 provides an overview of the permits and approvals required for the construction and operation of the proposed Project, and identifies the relevant agency for each permit or approval. The applicant also renews their existing taxation registrations and agreements, motor carrier permits, hazardous waste transporter registration, hazardous materials certificate of registration, consolidated transporter notification, hazardous material transportation license, and business license

TABLE 2-10. SUBSEQUENT PERMITS, APPROVALS, AND CONSULTATION REQUIREMENTS

Agency	Permit / Approval
Department of Toxic Substances Control	Hazardous Waste Facility Permit
Los Angeles Regional Water Quality Control Board	Stormwater Discharge Permit
City of Irwindale, Building and Safety Department	Building, Grading, Mechanical/Electrical Permits
Los Angeles County Department of Public Waste	Non Discharge Industrial Wastewater Discharge Permit.
Los Angeles County Fire Department	Fire Protection (hydrant unit and egress/ingress), Site Emergency Plans

Source: CleanTech 2013/2014.

CleanTech has applied for a stormwater discharge permit and is revising the stormwater pollution prevention plan (SWPPP) for the facility to address the new recycled oil filtering operation at the site, and will apply for a revision to that permit, and revise the SWPPP again if the proposed Project is approved.

While the City of Irwindale issues the various final building, grading, mechanical, and electrical permits; the City contracts with the County of Los Angeles, whose appropriate agencies review and approve the permit submittals. Additionally, the City of Irwindale would not issue the final permits until after the HWF permit is approved by DTSC.

CleanTech currently has a "Non-Discharge Industrial Wastewater Discharge Permit." This permit addresses the current oil filter crushing and recycled oil filtering operations regarding the removal of oily/water wastes and related waste sludge from the facility for off-site disposal/treatment. When the DTSC HWF permit is approved, the current permit would be amended to address both the size of the operation and quantities of materials removed off site for disposal/treatment.

CleanTech has current approvals from the Los Angeles County Fire Department for both the current operations and the previously proposed DTSC permitted operations. The Fire department's various units have tentatively approved the current revised/expanded proposed operations, but will not issue final approval until the DTSC HWF permit is approved and submitted as a revised permit modification. The three Units/Divisions of the Los Angeles County Fire Department included in these permit approval processes include the following:

- Los Angeles County Fire Department, Fire Protection;
- Los Angeles County Fire Department, Health Hazardous Materials Division (as the Unified Certified Program Agency [CUPA]); and
- Los Angeles County Fire Department, Petroleum Chemical Unit.

Requirements related to completion and approval of the federally required Clean Water Act's Spill, Prevention, Control, and Countermeasure (SPCC)b rule, including the SPCC plan that is required for all facilities with large amounts of petroleum products/waste storage, will also be completed through the Los Angeles County Fire Department permit approval process.

The applicant has determined through consultation with the SCAQMD, and during the required air quality permitting of the existing recycled oil filtering operation, that the proposed Project's tanks are exempt from permitting under Rule 219 (SCAQMD 2013); and the proposed Project does not include the installation of any other stationary equipment that would require air quality permitting. The construction contractor, if they use certain non-mobile source engines, may be required to have that equipment registered under the California Air Resources Board's Portable Equipment Registration Program (PERP) or have that equipment permitted by SCAQMD.

2.9 Effects Found Not to be Significant

In addition to addressing potentially significant environmental effects, CEQA requires that an EIR briefly explain the reasons why certain effects associated with a proposed Project have been determined not to be significant, and thus not discussed in detail in the EIR (CEQA Section 21100[c]). Appendix G of the State CEQA Guidelines (the Initial Study checklist) contains a list of environmental resources and issues to be evaluated when a Lead Agency conducts preliminary environmental review of a project.

In conducting the preliminary environmental review of the Project, DTSC determined that the proposed Project would have either no impacts or less than significant impacts to the following resources and issues:

- Aesthetics,
- Agricultural Resources,
- Geology and Soils,
- Land Use and Planning,
- Mineral Resources,
- Population and Housing,
- Public Services,
- Recreation, and
- Utilities and Service Systems.

Summary descriptions of these resources and issues listed above, and the reasons why the proposed Project would not have significant impacts related to these resources or issues, are provided in the sections below. This information is based on the project description provided in this section.

2.9.1 Aesthetics

CEQA Checklist Topics

The proposed Project would not result in potentially significant effects to aesthetics. Neither the proposed Project's construction nor operation would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

Explanation

The proposed Project is not located within a designated scenic vista. Other than the Santa Fe Dam Recreational Area (SFDRA), there are no scenic resources in or near the Project area, including but not limited to trees, rock outcroppings, historic buildings, or a State scenic highway. The Project site cannot easily be seen from within SFDRA and the Project site's view would not change due to the proposed Project. In addition, the nearest residences are located more than one mile from the Project site, and there are no sensitive view receptors in the Project area. The existing Project area is industrial in visual character.

The proposed Project's activities would not alter the line of sight from any scenic views or vistas. The Project would not adversely affect a scenic vista. The Project would not damage scenic resources. The site is surrounded by industrial development, and the proposed Project would only impact structures inside of the existing main warehouse building and three truck ramps within the Project site's interior paved parking area and would not change the height of any structures or require the addition of equipment outside of the building. Therefore, the proposed Project would be consistent with the existing visual character of the area.

The proposed Project site is surrounded by industrial development, and the construction work for the new facilities would not require changes to the exterior of the site building or cause other new features that would be easily visible from outside of the facility; all new operations would occur inside of the existing site building. Therefore, the construction or operation of the proposed Project would have no effect on the existing visual character or quality of the site and its surroundings.

The proposed Project does not include any changes to the existing facility lighting. Therefore, the daytime or nighttime lighting used during construction and operation of the proposed Project would be consistent with current practice and with the lighting in the surrounding industrial area. Therefore, the proposed Project would result in no effects to aesthetics.

2.9.2 Agriculture and Forestry Resources

CEQA Checklist Topics

The proposed Project would not result in potentially significant effects to agriculture and forestry resources. Neither the proposed Project's construction nor operation would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4523), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g));
- Result in the loss of forest land or conversion of forest land to non-forest use; or
- Involve other changes in the existing environment that, 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.

Explanation

The proposed Project is not located on or near Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation (CDOC 2010a). According to the City of Irwindale's Zoning Map, the proposed Project site is within the M-2 Zone (Heavy Manufacturing); therefore, the proposed Project would not conflict with zoning for agricultural or forest land zoning designations (City of Irwindale 2014). According to the CDOC's Division of Land Resource Protection, the only lands in Los Angeles County that qualify as Williamson Act lands are those on Catalina Island which are subject to the Santa Catalina Open Space Easement (CDOC 2014). Therefore, the proposed Project would not conflict with a Williamson Act contract. The proposed Project is not located on or near forest lands, as mapped by the California Department of Forestry and Fire Protection (CDFFP 2003). Therefore, the proposed Project would result in no effects to agriculture and forestry resources.

2.9.3 Geology and Soils

CEQA Checklist Topics

The proposed Project would not result in potentially significant effects to geology and soils. Neither the proposed Project's construction nor operation would meet one of the following criteria:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - 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
  - Strong seismic groundshaking
  - Seismic-related ground failure, including liquefaction
  - Landslides
- Result in substantial soil erosion or the loss of topsoil;
- Be located on geologic units 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;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Explanation

Description of Conditions

The Project site is located within the Baldwin Park Quadrangle of the San Gabriel Valley, a sediment-filled, east-trending structural trough situated along the southern flank of the San Gabriel Mountains (CDOC 1998). This is a seismically active area of Southern California, but the Project site is not within an Alquist-Priolo Earthquake Fault Zone. The California Department of Conservation's 2010 Fault Activity Map (FAM) and the City of Irwindale General Plan both indicate a variety of faults located in the Project vicinity, as summarized in the following table.

TABLE 2-11. FAULTS IN THE PROJECT VICINITY

Name	Type	Location/Alignment	Description
Sierra Madre Fault – San Gabriel Fault Zone	Late Quaternary fault displacement (during past 700,000 years)	~2 miles N of Irwindale, situated in an E-W alignment at the base of the San Gabriel Mountains	Maximum credible magnitude of about 7.2 on the Richter scale. Geomorphic evidence similar to Holocene faults except features are less distinct.
Raymond Fault (extension of Sierra Madre fault system)	Holocene fault displacement (during past 11,700 years) without historic record	~3 miles west of Irwindale; W-NW of the Project site, situated in a W-E/NE alignment through Pasadena, Arcadia, and San Marino.	Potential maximum credible magnitude of 6.7. Geomorphic evidence for Holocene faulting includes sag ponds, scarps showing little erosion, offset stream courses, linear scarps, shutter ridges, and triangular faceted spurs.

TABLE 2-11. FAULTS IN THE PROJECT VICINITY

Name	Type	Location/Alignment	Description
Walnut Creek Fault	Quaternary fault (age not differentiated)	SE of the Project on the SW side of West Covina, along the NW border of the Frank Bonelli Regional Park.	Evidence of displacement sometime during the past 1.6 million years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age.
Whittier-Elsinore Fault.	Late Quaternary / Holocene Fault	~9 miles S of Irwindale, situated in a NW-E/SE alignment between Whittier to the south and Hacienda Heights to the north	Historically produces minor earthquakes (less than 4.5 Richter magnitude). Estimated less than 15% probability of producing a moderate earthquake (5.5 to 6.0 Richter magnitude) within the next 100 years.
Duarte Fault (component of the larger Sierra Madre fault zone)	Holocene times (active within 11,000 years)	Within the City of Irwindale	The single fault trace within Irwindale. A buried segment of the active Duarte fault is known to traverse the southwestern corner of the Azusa Largo pit continuing along Foothill Boulevard to the east.
San Andreas Fault	Continental transform fault	~23 miles northwest of Irwindale	Geologic evidence suggests that a major earthquake (7.5 to 8.5 Richter magnitude) has a 50% chance of occurring within the next 30 years.
Newport-Inglewood Fault	Right-lateral fault	~29 miles southwest of Irwindale	6.0 to 6.5 Richter magnitude earthquakes on this fault have a 15% to 50% probability of occurring within the next 100 years, producing strong ground shaking lasting from 12 to 18 seconds.
Clamshell-Sawpit Fault	Reverse thrust fault	Extends through the cities of Sierra Madre and Monrovia.	Mapped length of 15 miles. This fault was the most likely source of the 1991 Sierra Madre earthquake though the fault's depth probably prevented surface rupture.

Source: CDOC 2010b; City of Irwindale 2010

The State of California Seismic Hazard Zones Map of the Baldwin Park Quadrangle indicates that the Project site is not located in any of the following seismic hazards areas:

- **Liquefaction -** Areas where historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required;
- **Earthquake-Induced Landslides -** Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required; and
- **Overlapping Liquefaction and Earthquake-Induced Landslides -** Areas the lie within zones of required investigation for both liquefaction and earthquake-induced landslides (CDOC 1999).

Explanation of No Significant Impacts

The proposed Project would be implemented entirely within the existing 0.98-acre CleanTech site, and would not increase or in any other way exacerbate potential seismic hazards at the site. As described above, the Project site is not located within a designated Alquist-Priolo Earthquake Fault Zone. In addition, facility structures would be built to withstand seismic events without catastrophic failure, and all units handling hazardous waste would include secondary containment facilities designed to also contain spillage as the result of a seismic event. The potential for hazardous material spills due to seismic events is discussed separately in the Hazards and Hazardous Materials Section (Section 3.4).

As noted, the Project would occur on an entirely previously disturbed site; minimal earth-disturbing activities would occur during construction and, therefore, the Project would have minimal potential result in erosion or the loss of topsoil. Further, the Project would operate in full compliance with the facility's Stormwater Pollution Prevention Plan (SWPPP) that would be updated to address the Project, if approved. The SWPPP, which is described in detail in Section 3.6 (Hydrology and Water Quality), includes Best Management Practices (BMPs) to minimize or avoid potential effects associated with erosion and siltation during Project construction.

The Project site is underlain by gravelly sands and boulders, which are not characteristic of the properties of expansive soils; additionally, as described above, the California Seismic Hazard Zones map indicates that the site is not within an area of soil liquefaction or an area prone to landslide. Therefore, the site is unlikely to 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 landslides, lateral spreading, subsidence, liquefaction, or collapse.

The proposed Project does not include installation of septic tanks or other septic systems; therefore, the Project would not result in effects related to soils being incapable of adequately supporting septic tanks or alternative wastewater disposal systems. Portable toilets may be used during construction of the Project, or the existing sanitary sewer would be used, and all waste would be disposed of off site. During operation of the Project, the existing sanitary sewer connection would be used and no new impacts would be introduced.

2.9.4 Land Use and Planning

CEQA Checklist Topics

The proposed Project would not result in potentially significant effects to land uses. Neither the proposed Project's construction nor operation would:

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

Explanation

The proposed Project is located in the City of Irwindale in an existing industrial area. The eastern boundary of the Facility is approximately 10 feet from the borderline of the City of Azusa at Peckham Road. The Project site is surrounded by other commercial/industrial properties. The SFDRA, is located approximately 1/3rd of a mile from the Project site; the distance to the nearest residential areas are approximately one mile to the east and south of the facility; and the nearest schools are located more than a mile from the Project site. A list of some of the notable nearby public receptors is provided in Table 2-1, above.

Construction and operation of the proposed Project would be contained within the 0.98-acre site, which is surrounded by industrial land uses. Therefore, the Proposed Project would not physically divide an established community.

Under the City of Irwindale's General Plan, the Land Use Designation for the proposed Project site is Industrial/Business Park. Based on the City of Irwindale's Zoning Map, the Project site is within the M-2 Heavy Manufacturing Zone (City of Irwindale 2014). Table 2-12 provides an analysis of the Project's consistency with the applicable policies, programs, and zoning ordinance.

TABLE 2-12. POLICY ANALYSIS

General Plan Policies and Programs	Consistency Analysis
Industrial/Business Park. The Industrial designation corresponds to the CM (Commercial Manufacturing), M-1 (Light Manufacturing), and the M-2 (Heavy Manufacturing) zones. The maximum FAR for this category is 1.0 to 1.0.	The proposed Project site is within the M-2 zone, and would not exceed the maximum FAR. Therefore, the proposed Project would not conflict with this policy.
Community Development Element Policy 3. The City of Irwindale will continue to ensure that the type, location, and intensity of all new development and intensified developments adhere to the requirements that are specified for their particular land use category in the General Plan.	The Land Use and Planning analysis of this EIR requires the proposed Project's compliance with applicable General Plan and Zoning Ordinances. As discussed below, the proposed Project will comply with the zoning regulations associated with the M-2 zone. Therefore, the Project would not conflict with this policy.
Infrastructure Element Policy 4. The City of Irwindale will strive to ensure that all new development implements its —fair-sharell of infrastructure improvements to offset the potential adverse impacts associated with the additional traffic that will be generated by the new development.	The proposed Project is not a new development; however, it would cause a small increase to existing traffic levels, but those increases as mitigated with a transportation plan, would not create significant transportation impacts (see Section 3.8).
Safety Element Policy 4. The City of Irwindale will strive to reduce the community's exposure to noise from on-going manufacturing activities.	The proposed Project does not have manufacturing activities and the noise impacts generated from the project's operation, including from transportation noise sources were not found to be significant (See Section 3.7).
Environmental Review. The City shall continue to evaluate the environmental impacts of new development and identify applicable mitigation measures prior to development approval, as required by the California Environmental Quality Act (CEQA). Environmental review shall be provided for those projects that will have a potential to adversely affect the environment. Issue areas that will be addressed in the environmental analysis related to resource issues include: air quality, water and hydrology, plant life, animal life, natural resources, energy, aesthetics, recreation, and cultural resources. In compliance with CEQA, the City shall also assign responsibilities for the verification of the implementation of any mitigation measures.	Although the City is not the CEQA Lead Agency, the purpose of this EIR is to evaluate the potential environmental impacts associated with construction and operation of the proposed Project. Section 3 provides the analysis for Project impacts and proposed mitigation measures. Therefore, the Project would not conflict with this program.
Stormwater Pollution Prevention. This program is designed to prevent contaminants from entering the storm drain system. A key element of this program is the National Pollution Discharge Elimination System (NPDES) requirements, which are administered through a countywide permit. These requirements call for measures to be imposed during construction activities, handouts for residential uses, and best management practices (BMPs) for non-residential uses. The City shall also continue to implement projects to maintain storm water quality, such as street sweeping, catch basin grills, signs, etc.	CleanTech has applied for a stormwater discharge permit and is revising the stormwater pollution prevention plan for the facility to address the new recycled oil filtering operation at the site, and will apply for a revision to that permit, and revise the SWPPP again if the proposed Project is approved. As such, the proposed Project would not conflict with this program.
Fire Prevention. The City shall continue to work with the County of Los Angeles Fire Department to promote fire prevention and fire safety programs. The City shall also encourage periodic inspections of existing structures by the Fire Department for compliance with fire safety standards and practices. All new development plans must be submitted to the Fire Department for review and comment during the plan check process. This review must be completed for the development process to continue. New development must conform to applicable standards and regulations.	The City of Irwindale currently maintains a Multi-Hazard Functional Plan that outlines responsibilities and procedures the City will follow in the event of an emergency or citywide disaster. In the event of an emergency at the site due to fire or a hazardous waste spill, the proposed Project is not expected to interfere with emergency response or an emergency evacuation plan. CleanTech also has a Contingency Plan (discussed Section 3.4) in place that outlines the emergency procedures that should be followed in the event of a release. This contingency plan has been has been submitted to and is on file with the Los Angeles County Fire Department. As such, the proposed Project would not conflict with this program.

TABLE 2-12. POLICY ANALYSIS

General Plan Policies and Programs	Consistency Analysis
Hazardous Materials Control. The City shall continue to cooperate with County, State, and Federal agencies involved in the regulation of hazardous materials storage, use, and disposal. The City shall work with the County Fire Department in requiring hazardous materials users and generators to identify safety procedures for responding to accidental spills and emergencies. The Fire Department shall also work with local law enforcement officials in regulating the transport of hazardous materials through the City. The City will continue to promote the safe disposal of —hazardous and toxic substances‖ used in private households through the support of —Hazardous Materials Collections‖ conducted at specific locations and times within the City.	The proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction and operation. Containment measures, employee training, and the preparation of a Contingency Plan that includes contingency planning for hazardous material transport would ensure that potential hazards to the public or personnel from a hazardous material spill or leak at the proposed Project site are less than significant. With the implementation of MM HAZ-1.1 and MM TR-1.1, less than significant impacts would occur during the transportation of hazardous materials to the proposed Project site. Therefore, the proposed Project would not conflict with this program.
Zoning Ordinance	**Consistency Analysis**
17.56 M-2 Heavy Manufacturing 17.56.020 - Uses requiring a conditional use permit. Because of considerations of smoke, fumes, dust, vibration, noise, traffic congestion, or hazard, the establishment and operation of the following uses in the M-2 (heavy manufacturing) zone shall not be permitted unless a conditional use permit authorizing such use has been granted: 32.Petroleum refining; 35.Recycling facilities;	The City of Irwindale has categorized the site use to be appropriate for the M-2 zone and has noted that the proposed Project would be considered an intensification of existing use that would not require a conditional use permit.

Sources: City of Irwindale 2008; City of Irwindale 2010; Municode 2013

The City of Azusa was contacted to obtain comment on the proposed Project's consistency with the City of Azusa General Plan, since the proposed Project is directly adjacent to the City of Azusa and would use at least one road located in the City of Azusa (1st Street). The City of Azusa did not provide an official response.

The proposed Project site is not located within a habitat conservation plan or natural community conservation plan. Therefore, the Project would not conflict with this criterion.

2.9.5 Mineral Resources

CEQA Checklist Topics

The proposed Project would not result in potentially significant effects to mineral resources. Neither the proposed Project's construction nor operation would:

- 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; or
- 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.

Explanation

The proposed Project is located in the City of Irwindale in an existing industrial area. The Irwindale area is historically known for its sand and gravel production, but the Project site could not be used for sand and gravel production without the removal of the other commercial/industrial buildings in the Project site area. The area around the Project site does not have any other known mineral resources, is not within an oil-producing area and there are no active oil wells on the Project site or known to exist in the immediate vicinity of the site (DOGGR 1992).

The Project site is located within a City of Irwindale mapped heavy-manufacturing zoned area and is not located near a City of Irwindale mapped quarry zone (City of Irwindale 2014). Additionally, the City of Irwindale's General Plan identifies the base land use designation for the Project site area as commercial/industrial and does not include the site area within the quarry overlay base land use designation, and the General Plan does not otherwise delineate the Project site area as an important mineral resource recovery site (City of Irwindale 2008).

Therefore, the proposed Project would not result in the loss of availability of any known mineral resource that would be of value to the region or the residents of the State, and would not result in the loss of availability of a locally important mineral resource recovery site.

2.9.6 Population and Housing

CEQA Checklist Topics

The proposed Project would not result in potentially significant effects to population and housing. Neither the proposed Project's construction nor operation would:

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

Explanation

The proposed Project would construct a used oil recycling facility within an existing industrial property in the City of Irwindale. The proposed Project would not construct new homes or new transportation infrastructure, which could directly or indirectly induce population growth. No housing or residents would be displaced, and construction of replacement housing would not be required. No effects to population and housing would occur from the proposed Project.

Construction is expected to occur in three phases over six to seven months. Therefore, construction would be short-term and temporary. Therefore, the proposed Project would not generate a permanent increase in population levels or a decrease in available housing, and no impacts to existing or future population growth levels would occur as a result of construction of the proposed Project.

During the operation period, a total of 20 new employees would be required for the operation of these new processes and associated office support work. This level of employment would not create a need for new housing; therefore, operation of the proposed Project would not generate a direct or indirect increase in the permanent population of the area.

2.9.7 Public Services

CEQA Checklist Topics

The proposed Project would not result in potentially significant effects to public services. Neither the proposed Project's construction nor operation would:

- 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, and
  - Other public facilities.

Explanation

The proposed Project does not substantially alter the fire or police response requirements that could occur at the existing site. The proposed Project's construction would not create additional fire risks. The types of materials that are proposed to be stored and processed at the Project site during Project operations are substantially the same as the materials currently stored and processed at the Project site. The proposed Project has been designed to incorporate required on-site fire protection and fire response, and the Project will be approved by the City of Irwindale prior to construction (please also see Section 3.4 Hazards and Hazardous Materials for additional description of the potential fire related accident scenarios and the on-site fire protection controls). The Project would have no effect on the service ratios, response times, or performance objectives associated with the provision of fire protection and police protection.

No schools, parks, or other public facilities are located within or are directly adjacent to the proposed Project site, and the construction and operation of the proposed Project would not impact the use, directly or indirectly, of these public facilities. The proposed Project would not substantially increase worker employment in the Project site area that would affect the use or adequacy of existing public facilities. Therefore, the proposed Project would have no effect on schools, parks, and other public facilities.

2.9.8 Recreation

CEQA Checklist Topics

The proposed Project would not result in potentially significant effects to recreation. Neither the proposed Project's construction nor operation would:

- 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;
- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment; or
- Affect existing recreational opportunities.

Explanation

The proposed Project's construction and operation would not affect the level of use of the areas recreational facilities such as the nearby San Fe Dam Recreation Area (SFDRA), and so would not accelerate the physical deterioration of existing neighborhood and regional parks or other recreational facilities.

The proposed Project site and the immediate area surrounding the site are characterized by industrial uses. Construction and operation of the proposed Project does not include any new recreational facility components or require the expansion of the existing recreational facility, and would not increase the use of existing neighborhood and/or regional parks or other recreational facilities.

The Project would not affect the existing recreational opportunities that exist at the nearby SFDRA or other recreation areas (please see Section 3 for additional impact analysis, such as hazards/hazardous materials and noise impacts that could have the potential to impact nearby recreational areas [i.e. the SFDRA] beyond the Project site boundary). Therefore, the Project would not have any effects on existing recreational opportunities.

2.9.9 Utilities and Service Systems

CEQA Checklist Topics

The proposed Project would not result in potentially significant effects to utilities and service systems. Neither the proposed Project's construction nor operation would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed;
- Result in a determination by the wastewater treatment provider that serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs; or
- Be subject to, or fail to comply with federal, State, and local statutes and regulations related to solid waste.

Explanation

Wastewater from the indoor containment areas generated from routine cleaning or spill cleanup would be collected and pumped into one of the non-RCRA wastewater tanks for accumulation and transport to a permitted hazardous waste disposal or treatment facility for treatment or disposal. No wastewater would be treated at or discharged from the facility. There is no active industrial wastewater connection at the site, and the proposed Project would not require an industrial wastewater connection. The proposed Project would not exceed wastewater treatment requirements.

A sanitary wastewater connection for on-site bathrooms and office kitchen area currently exists at the proposed Project site. Adequate capacity would be available to serve the proposed Project's sanitary wastewater requirements. Water is currently provided to the proposed Project site by the Azusa Light and Power Department. The department would be able to handle any temporary increase in water during construction or the proposed increase of 500 gallons per month during operation. As discussed above, no wastewater would be treated at the facility. No new or expanded water or wastewater facilities would be required for the proposed Project.

The proposed Project would not change stormwater flows and the site is designed to accommodate existing and projected stormwater flows, so the proposed Project would not require the construction of additional, new, or expanded stormwater facilities. If approved, the proposed Project would apply for a revised Stormwater Discharge Permit from the Los Angeles Regional Water Quality Control Board (RWQCB) and complete a revised Stormwater Pollution Prevention Plan (SWPPP). Any stormwater discharged to the stormwater sewer would be periodically tested per stormwater discharge permit requirements to ensure it meets the standards set by the RWQCB. The proposed Project would not result in the construction of new stormwater drainage facilities or expansion of existing facilities. Any rainwater collected in the ramp containment areas would be tested and if it does not meet regulatory discharge standards the liquids would be pumped into one of the indoor sumps (1, 2, or 3), and from there pumped into one of the non-RCRA wastewater tanks for accumulation and eventual transport to a permitted hazardous waste disposal or treatment facility for treatment or disposal.

The proposed Project estimates that construction activities would require no more than 10,000 gallons of water usage at the site, or no more than 20,000 gallons total including the water used to make the concrete shipped to the site; and operation activities would require 500 gallons per month of increased water usage. The Azusa Light and Water (ALW) Department projects that 1.25×10^{10} gallons (38,450 acre-feet) of water would be available each year from 2015 to 2035 (Azusa Light & Water 2011). The proposed Project's 500 gallon per month increase in water use would use less than 0.00005 percent of this supply. The ALW Department would be able to support the water usage from the temporary construction activities and the small permanent increase in water use from operation activities. Therefore, sufficient water supplies are available to serve the proposed Project from existing entitlements and resources, and no new or expanded water entitlements would be required.

A sanitary wastewater connection for on-site bathrooms and office kitchen area currently exists at the proposed Project site. Adequate capacity would be available to serve the proposed Project's sanitary wastewater requirements during construction and the increase in employees working at the site during operation. No wastewater would be treated at the facility during operation and there would be no industrial wastewater connection. The volume of sanitary wastewater generated during operation is not expected to exceed the capacity of wastewater treatment providers.

The proposed Project's primary purpose is to enable the recycling of a hazardous waste, namely used oil. All of the solid waste streams accepted at the site are hazardous wastes, which will be transported off site to a permitted hazardous waste treatment or disposal facility for treatment or disposal. The only solid wastes generated and transported from the site from the proposed Project would be wastes associated with project construction and front office operations (primarily paper or food wastes). The proposed Project would utilize the Azusa Land Reclamation Landfill which has sufficient permitted capacity for disposal of projected inert construction wastes and office waste generated by the proposed Project. The amount of waste generated and sent to area landfills would have insignificant effects on area landfill capacity and life.

The proposed Project involves the issuance of a hazardous waste facility permit that would allow the facility to construct and operate in compliance with federal and State statutes and regulations concerning hazardous waste. The facility would only accept listed hazardous wastes, and would not accept non-hazardous solid wastes. None of the activities allowed by this Project are anticipated to conflict with federal, State, and/or local statutes and regulations related to solid waste.

Summary

In conclusion, the proposed Project would not result in potentially significant effects to the following resource areas, as discussed above:

- Aesthetics,
- Agricultural and Forestry Resources,
- Geology/Soils,
- Land Use and Planning,
- Mineral Resources,
- Population and Housing,
- Public Services,
- Recreation, and
- Utilities and Service Systems.

3. Environmental Setting, Impacts, and Mitigation

3.1 Introduction

This introductory section serves as a roadmap for the reader, identifying the scope of the environmental analysis, format, and content of the resource-specific analyses, and key methodological approaches to the impact analyses.

3.1.1 Scope of the Environmental Analysis

The primary Project components that are addressed in this Environmental Impact Report (EIR) are:

- Construction of the new Project features including: the aboveground storage tank areas, bermed unloading areas with sumps, and upgraded truck ramps,

- Operation of the proposed hazardous waste treatment facility, including the incremental truck traffic and employee travel trips needed to transport the increased volumes of incoming used oil and other hazardous wastes and outgoing certified recycled oil and other bulked hazardous wastes.

Resource-specific impact analyses are included in the following sections:

3.2 Air Quality
3.3 Biological Resources
3.4 Cultural and Paleontological Resources
3.5 Hazards and Hazardous Materials
3.6 Hydrology and Water Quality
3.7 Noise
3.8 Transportation

3.1.2 Format and Content of the Environmental Analysis

Each resource section includes a description of the following.

Existing Conditions. In most cases, the description of existing conditions focuses on the immediate vicinity of the Project sites. For some resources, such as air quality and transportation, regional information is more appropriate.

Regulatory Framework. This includes a description of federal, state, and/or local regulations that are applicable to the assessment of Project impacts.

Impact Assessment Methodology. This includes the procedures followed to determine the type and magnitude of impacts that would occur.

Thresholds of Significance. Resource-specific thresholds, where appropriate, are used to evaluate the significance of environmental impacts. They are based on available resource agency thresholds, such as the South Coast Air Quality Management District's air pollutant and greenhouse gases emissions thresholds, augmented where appropriate with those identified in the Initial Study Checklist included in Appendix G of the California Environmental Quality Act (CEQA) Guidelines, and modified as needed to address potential Project impacts.

Project Impacts. Both direct and indirect impacts that would occur prior to the application of the Department of Toxic Substances Control (DTSC) mitigation measures are identified. Direct impacts are those that are caused by and immediately related to the Project. Indirect impacts are not immediately related to the Project, but are reasonably foreseeable changes in the environment caused by the direct impacts (CEQA Guidelines Section 15358). The following categories are used for classifying Project related impacts:

- *Class I* – Significant adverse impacts that cannot be feasibly mitigated or avoided. If the Project is approved, decision-makers are required to adopt a statement of overriding consideration, pursuant to CEQA Section 15093, explaining why Project benefits outweigh the unavoidable, adverse environmental effects.

- *Class II* – Significant adverse Impacts that can be feasibly mitigated or avoided. If the Project is approved, decision-makers are required to make findings pursuant to CEQA Section 15091, that impacts have been mitigated to the maximum extent feasible by implementing the recommended mitigations.

- *Class III* – Adverse impacts that are less than significant. These impacts do not require that CEQA findings be made.

- *Class IV* – No impact or Beneficial impacts.

Mitigation Measures. The applicant has proposed key project design features and they have in place other training and response procedures that would reduce the potential for and impacts of accidental releases, but the applicant has not proposed any measures to reduce the environmental impacts from normal operations that could be called applicant-proposed mitigation measures (APMs). Mitigation measures have been identified as needed to reduce or avoid potentially significant environmental effects.

Residual Impacts. This section identifies the impacts that would remain after the application of either APMs or other mitigation measures identified by the County to mitigate Project impacts.

3.1.3 Key Methodological Approaches

The following general methodological approaches were used in the resource-specific impact assessments:

1. The proposed Project will take place at an existing facility with existing baseline conditions. The site will undergo construction activities within the context of the existing building and parking areas, but no new buildings or changes to the size of buildings or the parking area would occur. However, there will be subsurface construction, and it is assumed based on available data that some of the excavation required for the Project could reach previously undisturbed natural soils.

2. Some of the baseline activities at the facility, oil filter crushing or recycled oil filtering operations, may be removed from the site or may be retained and relocated within the site building depending on economic conditions or other factors. However, for worst-case impact assessment it has been assumed that the proposed new activities would occur without any reduction in existing activity levels. This maximizes the potential impacts for several resources, such as air quality, traffic, and noise.

3. The proposed Project will be built in phases, where not all phases may be built out initially but may be built later as used oil processing demand increases over time. Alternatively, it is possible that not all of the proposed Project phases, specifically Phase 3, will be built out if conditions become more favorable for some other type of operation that would require the space that would be otherwise be used for the Phase 3 tanks. However, for the purposes of this analysis it is assumed that all project phases would be built out and that the Project would process the maximum waste throughputs identified in Table 2.4.

3.2 Air Quality and Climate Change

3.2.1 Existing Conditions

Air Quality

Regional Climate and Meteorology

The proposed Project is located in Irwindale within the South Coast Air Basin (SCAB) under the South Coast Air Quality Management District (SCAQMD) jurisdiction. The climate of the SCAB is characterized as Mediterranean climate with warm, dry summers and cool winters with seasonally heavy precipitation that occurs primarily during the winter months. Summers typically have clear skies, warm temperatures, and low humidity. A monthly climate summary for the City of Azusa, which is directly adjacent to the Project site, was selected to characterize the climate of the study area. As described in Table 3.2-1, average summer (June to September) high and low temperatures in the study area range from 92°F to 58°F. Average winter (December to March) high and low temperatures range from 71°F to 42°F. The average annual precipitation is approximately 17 inches with 75 percent occurring between December and March. Summers are very dry with five straight months starting in May averaging less than a quarter of an inch of precipitation. Little precipitation occurs during summer because of high-pressure cell blocks migrating storm systems over the eastern Pacific.

TABLE 3.2-1. AZUSA MONTHLY AVERAGE TEMPERATURES AND PRECIPITATION

	Temperature (ºF)		
Month	Maximum	Minimum	Precipitation
January	68	43	3.11
February	69	45	4.76
March	71	47	2.63
April	76	49	1.20
May	79	54	0.23
June	84	58	0.09
July	90	62	0.00
August	92	62	0.03
September	89	60	0.15
October	80	55	1.05
November	74	47	1.62
December	68	42	2.45

Source: WC 2014

Air Pollutants and Monitoring Data

Air pollutants are defined as two general types: (1) “criteria” pollutants, representing six pollutants for which national and state health- and welfare-based ambient air quality standards have been established; and (2) toxic air contaminants (TACs), which may lead to serious illness or increased mortality even when present at relatively low concentrations. Generally, TACs do not have ambient air quality standards. The three TACs that do have ambient air quality standards (lead, vinyl chloride, and hydrogen sulfide) are pollutants that are not relevant to this Project.

Criteria Pollutants

The USEPA, California Air Resources Board (ARB), and the local air districts classify an area as attainment, unclassified, or nonattainment depending on whether or not the monitored ambient air quality data shows compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. The National and California Ambient Air Quality Standards (NAAQS and CAAQS) relevant to the Project are provided in Table 3.2-2; Table 3.2-3 summarizes the federal and State attainment status of criteria pollutants for the SCAQMD based on the NAAQS and CAAQS, respectively.

TABLE 3.2-2. NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	National Standards	Health Effects
Ozone (O_3)	1-hour	0.09 ppm	--	Breathing difficulties, lung tissue damage
	8-hour	0.070 ppm	0.075 ppm	
Respirable particulate matter (PM10)	24-hour	50 µg/m^3	150 µg/m^3	Increased respiratory disease, lung damage, cancer, premature death
	Annual	20 µg/m^3	--	
Fine particulate matter (PM2.5)	24-hour	--	35 µg/m^3	Increased respiratory disease, lung damage, cancer, premature death
	Annual [1]	12 µg/m^3	12 µg/m^3	
Carbon monoxide (CO)	1-hour	20 ppm	35 ppm	Chest pain in heart patients, headaches, reduced mental alertness
	8-hour	9.0 ppm	9 ppm	
Nitrogen dioxide (NO_2)	1-hour	0.18 ppm	0.100 ppm [2]	Lung irritation and damage
	Annual	0.030 ppm	0.053 ppm	
Sulfur dioxide (SO_2)	1-hour	0.25 ppm	0.075 ppm [2]	Increases lung disease and breathing problems for asthmatics
	3-hour	--	0.5 ppm	
	24-hour	0.04 ppm	--	

Notes:
ppm = parts per million; µg/m3 = micrograms per cubic meter; "--" = no standards
1 – The federal standard shown is the primary standard, the secondary standard is 15 µg/m3.
2 – The new federal 1-hour NO2 and SO2 standards are based on the 98th and 99th percentile of daily hourly maximum values, respectively.
Source: ARB 2014a

Table 3.2-4 summarizes the historical air quality data for the Project area collected at the nearest representative air quality monitoring stations in Irwindale. The air monitoring station used for ozone, PM10, PM2.5, CO, and NO_2 is located in the East San Gabriel Valley (Azusa), and the air monitoring station used for SO_2 is located in Central Los Angeles. Table 3.2-4 presents the maximum pollutant levels measured from the monitoring station from 2010 through 2012.

TABLE 3.2-3. ATTAINMENT STATUS FOR THE SCAQMD

Pollutant	Attainment Status	
	Federal	State
O_3	Extreme Nonattainment	Extreme Nonattainment
PM10	Attainment/Maintenance	Nonattainment
PM2.5	Nonattainment	Nonattainment
CO	Attainment/Maintenance	Attainment
NO_2	Attainment/Maintenance	Attainment
SO_2	Attainment	Attainment

Source: ARB 2014b; USEPA 2014a

TABLE 3.2-4. BACKGROUND AMBIENT AIR QUALITY DATA

Pollutant	Averaging Time	Maximum Concentration (ppm or µg/m³) [1]		
		2010	2011	2012
O_3	1-hour	0.104	0.111	0.134
	8-hour	0.081	0.092	0.095
PM10	24-hour	70.0	65.0	78.0
	Annual	29.8	32.7	30.3
PM2.5	24-hour	44.4	49.5	39.6
	Annual	10.9	11.4	11.0
CO	1-hour	3.0	--	--
	8-hour	1.3	1.4	1.2
NO_2	1-hour	0.077	0.080	0.072
	Annual	0.018	0.019	0.020
SO_2	1-hour	0.010	0.020	0.005
	24-hour	0.002	--	--

Notes:
ppm = parts per million; µg/m3 = micrograms per cubic meter; "—" = no data
1 – Gaseous pollutant (ozone, SO2, NO2, and CO) concentrations are shown in ppm and particulate (PM10 and PM2.5) concentrations are shown in µg/m3.
Source: SCAQMD 2011; SCAQMD 2012a; SCAQMD 2013a

The ambient air quality data shown above indicates that in the three years of data shown, the local Project area had experienced exceedances of the federal ozone and PM2.5 standards and the State ozone, PM10, and PM2.5 standards.

Climate Change

While climate change has been a concern since at least 1998, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), efforts devoted to greenhouse gas (GHG) emissions reduction, and climate change research and policy have increased dramatically in recent years.

Global climate change (GCC) is expressed as changes in the average weather of the Earth, as measured by change in wind patterns, storms, precipitation, and temperature. Much scientific research has indicated that the human-related emissions of GHGs above natural levels are likely a significant contributor to GCC.

Because the direct environmental effect of GHG emissions is the increase in global temperatures, which in turn has numerous indirect effects on the environment and humans, the area of influence for GHG impacts associated with the Project would be global. However, those cumulative global impacts would be manifested as impacts on resources and ecosystems in California. Additionally, as this analysis concerns cumulative global impacts, there is no separate cumulative impacts analysis for Global Climate Change.

Setting

The Project site is located in the City of Irwindale in the northern area of the SCAB. In California, ARB is designated as the responsible agency for traditional air quality regulations. In addition, Assembly Bill (AB) 32 vested ARB with regulatory authority for GHGs.

Greenhouse Gases

Greenhouse gases are gases that trap heat in the atmosphere and are emitted by natural processes and human activities. Examples of GHGs that are produced both by natural processes and industry include CO_2, Methane (CH_4), and Nitrous Oxide (N_2O). The accumulation of GHGs in the atmosphere regulates the earth's temperature. GHGs have varying amounts of global warming potential (GWP). The GWP is the ability of a gas or aerosol to trap heat in the atmosphere. By convention, CO_2 is assigned a GWP of 1. In comparison, CH_4 has a GWP of 25, which means that it has a global warming effect 25 times greater than CO_2 on an equal-mass basis. To account for their GWP, GHG emissions are often reported as CO2e (CO_2 equivalent). The CO2e for a source is calculated by multiplying each GHG emission by its GWP, and then adding the results together to produce a single, combined emission rate representing all GHGs.

3.2.2 Regulatory Framework

Air Quality

Sources of air emissions in the SCAB are regulated by the USEPA, ARB, and SCAQMD. In addition, regional and local jurisdictions play a role in air quality management. The role of each regulatory agency is discussed below.

Federal

The federal Clean Air Act (CAA) of 1970 and its subsequent amendments form the basis for the nation's air pollution control effort. The USEPA is responsible for implementing most aspects of the CAA. Basic elements of the act include the establishment of NAAQS for major air pollutants, hazardous air pollutant standards, attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The CAA delegates the enforcement of the federal standards to the states. In California, the ARB is responsible for enforcing air pollution regulations. In the SCAB, the SCAQMD has this responsibility.

State Implementation Plan

For areas that do not attain the NAAQS, the CAA requires the preparation of a State Implementation Plan (SIP), detailing how the State will attain and maintain the NAAQS within mandated timeframes. In response to this requirement, the SCAQMD and Southern California Association of Governments (SCAG) have developed air quality management plans (AQMPs). The focus of the 2003 AQMP was to demonstrate attainment of the federal PM10 standard by 2006 and the federal 1-hour O_3 standard by 2010, while making expeditious progress toward attainment of State standards (SCAQMD 2003a). The 2003 AQMP also includes an NO_2 maintenance plan.

On June 11, 2007, the USEPA re-designated the SCAB from nonattainment to attainment for the CO 1-hour and 8-hour NAAQS. The USEPA also approved a SIP revision for the SCAB nonattainment area, stating that this area meets the CAA requirements for maintenance plans for CO. The USEPA made an adequacy finding and approved motor vehicle emission budgets, which are included in the maintenance plan. The USEPA also approved the California motor vehicle inspection and maintenance (I/M) program as meeting the low enhanced I/M requirements for CO in the South Coast region (USEPA 2007).

The SCAQMD and SCAG, in cooperation with the ARB and the USEPA, have developed the 2007 AQMP for purposes of demonstrating compliance with the new NAAQS for PM2.5, the NAAQS for PM10, the 8-hour O_3 NAAQS, the 1-hour O_3 NAAQS, and other air quality planning requirements. The 1-hour O_3 standard was revoked by the USEPA, but the SCAQMD is still tracking progress towards attainment of this standard. The SCAQMD Governing Board adopted the Final 2007 AQMP on June 1, 2007 (SCAQMD 2007).

Since it will be more difficult to achieve the 8-hour O_3 NAAQS compared to the 1-hour NAAQS, the 2007 AQMP contains substantially more emission reduction measures compared to the 2003 AQMP. The USEPA approved nearly all elements of the 2007 PM2.5 plan and the 2007 8-hour O_3 Plan in 2011. On June 12, 2013, the USEPA provided final approval of SCAQMD's 2009 PM10 Redesignation Request and Maintenance Plan. Later in 2013, USEPA approved the South Coast 1997 PM2.5 NAAQS contingency measures that will terminate the sanctions and FIP clocks that were triggered by USEPA's partial disapproval of the South Coast's 2007 PM2.5 plan.

During 2012 and 2013, the USEPA determined that the 1-hour ozone plan was inadequate and withdrew approval of the vehicle-miles-traveled (VMT) emissions offset demonstration for the 8-hour Ozone Plan. As a result, the District is required to submit new plan elements to demonstrate 1-hour and 8-hour ozone attainment.

The AQMD Governing Board approved the 2012 AQMP on December 7, 2012 (SCAQMD 2012b). This plan addresses the 1-hour and 8-hour Ozone Plan inadequacies identified by the USEPA and provides a 24-hour PM2.5 plan. However, this AQMP has not yet been approved by the USEPA, so it is not the applicable AQMP for CEQA review.

Currently, the 2009 Maintenance Plan is the applicable plan for PM10, and the 2007 AQMP is the applicable plan for ozone and PM2.5.

Emission Standards for Non-Road Diesel Engines

The USEPA has established a series of cleaner emission standards for new off-road diesel engines culminating in the Tier 4 Final Rule of June 2004. The Tier 1, Tier 2, Tier 3, and Tier 4 standards require compliance with progressively more stringent emission standards. Tier 1 standards were phased in from 1996 to 2000 (year of manufacture), depending on the engine horsepower category. Tier 2 standards were phased in from 2001 to 2006, and the Tier 3 standards were phased in from 2006 to 2008.

The Tier 4 standards complement the latest 2007 and later on-road heavy-duty engine standards by requiring 90 percent reductions in diesel particulate matter (DPM) and NO_x when compared against current emission levels. The Tier 4 standards are currently being phased in starting with smaller engines in 2008 until all but the very largest diesel engines meet NO_x and PM standards in 2015.

Non-Road Diesel Fuel Rule

In May 2004, the USEPA set sulfur limits for non-road diesel fuel. Under this rule, sulfur levels in non-road diesel fuel would be limited to 500 ppm starting in 2007 and 15 ppm starting in 2010 (USEPA 2004), at which time it would be equivalent to sulfur content restrictions of the California Diesel Fuel Regulations (described below).

Emission Standards for On-Road Trucks

To reduce emissions from on-road, heavy-duty diesel trucks, the USEPA established a series of cleaner emission standards for new engines, starting in 1988. These emission standards regulations have been revised over time. The latest effective regulation, the 2007 Heavy-Duty Highway Rule, provides for reductions in PM, NO_x, and non-methane hydrocarbon emissions that were phased in during the model years 2007 through 2010 (USEPA 2000).

State

California Clean Air Act

In California, the ARB is designated as the responsible agency for all air quality regulations. The ARB, which became part of the California Environmental Protection Agency (Cal/EPA) in 1991, is responsible for implementing the requirements of the federal CAA, regulating emissions from motor vehicles and consumer products, and implementing the California Clean Air Act of 1988 (CCAA). The CCAA outlines a program to attain the CAAQS for O_3, NO_2, SO_2, and CO by the earliest practical date. Since the CAAQS are often more stringent than the NAAQS, attainment of the CAAQS will require more emission reductions than what is required to demonstrate attainment of the NAAQS. Similar to the federal requirements, the State requirements and compliance dates are based on the severity of the ambient air quality standard violation within a region.

Heavy Duty Diesel Truck Idling Regulation

This ARB rule became effective February 1, 2005, and prohibits heavy-duty diesel trucks from idling for longer than five minutes at a time, unless they are queuing, and provided the queue is located beyond 100 feet from any homes or schools (ARB 2006).

California Diesel Fuel Regulations

In 2004, the ARB set limits on the sulfur content of diesel fuel sold in California for use in on-road and off-road motor vehicles (ARB 2004). Under this rule, sulfur content of diesel fuel would be limited to 15 ppm starting in June 2006.

Local

The SCAQMD is primarily responsible for planning, implementing, and enforcing federal and State ambient standards within this portion of the SCAB. As part of its planning responsibilities SCAQMD prepares Air Quality Management Plans and Attainment Plans as necessary based on the attainment status of the air basins within its jurisdiction. The SCAQMD is also responsible for permitting and controlling stationary source criteria and air toxic pollutants as delegated by the USEPA.

Through the attainment planning process, the SCAQMD develops the SCAQMD Rules and Regulations to regulate sources of air pollution in the SCAB (SCAQMD 2014). The applicable SCAQMD rules to the Project are listed below.

SCAQMD Rule 401 – Visible Emissions. This rule prohibits discharge of air contaminants or other material, which are as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or obscure an observer's view.

SCAQMD Rule 402 – Nuisance. This rule prohibits discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any such persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 – Fugitive Dust. The purpose of this rule is to control the amount of PM entrained in the atmosphere from man-made sources of fugitive dust. The rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area to be visible beyond the emission source's property line. During Project construction, best available control measures identified in the rule would be required to minimize fugitive dust emissions from proposed earth-moving and grading activities. These measures would include site watering as necessary to maintain sufficient soil moisture content.

Additional requirements apply to operations on a property with 50 or more acres of disturbed surface area, or for any earth-moving operation with a daily earth-moving or throughput volume of 5,000 cubic yards or more three times during the most recent 365-day period. These requirements include submittal of a dust control plan, maintaining dust control records, and designating a SCAQMD-certified dust control supervisor. The proposed Project's construction is well below these triggers and would not be subject to these additional requirements.

SCAQMD Regulation XI – Source Specific Standards. This regulation is composed of several dozen individual rules, most of which are not applicable to this Project. Specific rules that may be applicable include:

- Architectural coating Rule 1113 that limits the volatile organic compound (VOC) content of paints applied to various surfaces that would be applicable to any construction painting operation;

SCAQMD Regulation XIII – New Source Review. This regulation requires the permitting of new stationary sources and requires the use of best available control technology (BACT) to control criteria pollutant emissions and requires offsetting emissions, other than CO, if they are over four tons per year. It has been determined that none of the proposed facilities would require permitting by SCAQMD. (SCAQMD 2013b)

Climate Change

All levels of government have some responsibility for the protection of air quality, and each level (federal, State, and regional/local) has specific responsibilities relating to air quality regulation. The regulation of GHGs is a relatively new component of air quality. Several legislative actions have been adopted to regulate GHGs on a federal, State, and local level.

Federal

Massachusetts v. EPA

In April 2007, the U.S. Supreme Court held that GHG emissions are pollutants within the meaning of the Clean Air Act (CAA). In reaching its decision, the court also acknowledged that climate change results, in part, from anthropomorphic causes. (*Massachusetts et al. Environmental Protection Agency* 549 U.S. 497, 2007). The Supreme Court's ruling paved the way for the regulation of GHG emissions by USEPA under the CAA.

Clean Air Act

The federal CAA of 1970 and its subsequent amendments form the basis for the nation's air pollution control effort. The USEPA is responsible for implementing most aspects of the CAA. Under the provisions of the CAA to protect public health and welfare, the USEPA has the authority to regulate GHGs, should a finding be made that GHGs have the potential for adverse impacts.

In response to the Supreme Court decision on December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- **Endangerment Finding:** That the current and projected concentrations of the GHGs in the atmosphere threaten the public health and welfare of current and future generations, and
- **Cause or Contribute Finding:** That the combined emissions of GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

USEPA has enacted a number of GHG regulations and other environmental regulations that will impact GHG emissions, including:

- Mandatory GHG Reporting,
- GHG Tailoring Rule for PSD Permits,
- GHG Vehicle Emissions Standards,
- Corporate Average Fuel Economy Standards, and
- Renewables Fuel Standard.

None of these federal regulations are specifically relevant to the construction or operation of the proposed Project.

State

California is one of several states that have set GHG emission targets. Executive Order S-3-05 and AB 32, the California Global Warming Solutions Act of 2006, promulgated targets to achieve reductions in GHG to 1990 GHG levels by the year 2020. This target-setting approach allows progress to be made in addressing climate change, and is a forerunner to setting emission limits.

AB 32 – California Global Warming Solutions Act of 2006

AB 32 was signed into law by Governor Schwarzenegger on September 27, 2006, and is the first law to comprehensively limit GHG emissions at the State level. The intent of AB 32 is to reduce California GHG emissions to 1990 levels by 2020. AB 32 instructs the ARB to adopt regulations that will reduce emissions from significant sources of GHG and establish a mandatory GHG reporting and verification program by January 1, 2008. AB 32 requires the ARB to adopt GHG emission limits and emission reduction measures by January 1, 2011, both of which are to become effective on January 1, 2012. AB 32 does not identify a significance level of GHG for CEQA purposes, nor has the ARB adopted such a significance threshold.

In accordance with AB 32, the ARB approved the Climate Change Scoping Plan (Scoping Plan) (ARB 2008) in October 2008, which outlines California's strategy for achieving the 2020 GHG emissions limit outlined under the law. The Scoping Plan includes recommendations for reducing GHG emissions from most sectors of the California economy. The 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 cost of implementation fee regulation to fund the program. These measures have been introduced through four workshops between November 30, 2007, and April 17, 2008. A draft scoping plan was released for public review and comment on June 26, 2008, followed by more workshops in July and August 2008. The proposed scoping plan was released on October 15, 2008, and approved at the Board hearing on December 12, 2008. The draft of the First Update to the Scoping Plan was published in February 2014, followed by its accompanying Environmental Analysis (CEQA Equivalent Document) published in March 2014. The Scoping Plan update is currently scheduled for consideration at an Air Resources Board Hearing in May 2014.Executive Order S-3-05

Executive Order S-3-05, signed by Governor Schwarzenegger on June 1, 2005, calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80 percent reduction in GHG emissions by 2050. Executive Order S-3-05 also calls for the Cal/EPA to prepare biennial science reports on the potential impact of continued GCC on certain sectors of the California economy. The first of these reports, "Our Changing Climate: Assessing Risks to California," and its supporting document "Scenarios of Climate Change in California: An Overview" were published by the California Climate Change Center in 2006.

California Senate Bill 97

Senate Bill 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directs the OPR to develop draft CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions" by July 1, 2009, and directs the Resources Agency to certify and adopt the CEQA guidelines by January 1, 2010.

The OPR published a technical advisory on CEQA and Climate Change on June 19, 2008. The guidance did not include a suggested threshold, but stated that the OPR has asked the ARB to, "recommend a method for setting thresholds which will encourage consistency and uniformity in the CEQA analysis of greenhouse gas emissions throughout the state." The OPR does recommend that CEQA analyses include the following components:

- Identify Greenhouse Gas Emissions
- Determine Significance
- Mitigate Impacts

On December 30, 2009, the California Natural Resources Agency adopted amendments to the CEQA Guidelines including GHG/Climate Change analysis guidelines. According to the California Natural Resources Agency (CNRA 2009), "due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis." Two GHG CEQA checklist items were included as part of the Guideline amendment; they are discussed further in Section 3.2.3.

As discussed in Section 15064.4 of the CEQA Guidelines, the determination of the significance of GHG emissions calls for a careful judgment by the lead agency, consistent with the provisions in Section 15064. Section 15064.4 further provides that a lead agency should make a good-faith effort, to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

1. Use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
2. Rely on a qualitative analysis or performance-based standards.

Section 15064.4 also advises a lead agency to consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Local

To date, the SCAQMD has developed two regulations regarding GHG emissions (SCAQMD 2014). Those regulations are:

SCAQMD Rule 2701 – SoCal Climate Solutions Exchange. This rule establishes a voluntary program to encourage, quantify, and certify voluntary high-quality certified GHG emission reductions in the district.

SCAQMD Rule 2702 – Greenhouse Gas Reduction Program. This program will fund projects through contracts in response to requests for proposals or purchase GHG emission reductions.

These two SCAQMD rules are not applicable to the proposed Project.

The City of Irwindale General Plan does not include any provisions related to greenhouse gases or climate change (City of Irwindale 2008).

3.2.3 Project Impacts and Mitigation

Air Quality

Significance Criteria

Air Quality Impacts

Project construction and operation would produce significant air quality impacts under the following circumstances:

AQ-1: The Project conflicts with or obstructs implementation of the applicable air quality plan.

AQ-2: The Project violates any air quality standard or contributes substantially to an existing or projected air quality violation.

AQ-3: The Project results in 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The regional thresholds of significance for construction activities and project operations as shown below in Table 3.2-5 were used in this EIR to determine the significance of Project air quality impacts. These criteria are based on CEQA thresholds recommended by the SCAQMD (SCAQMD 2013c).

TABLE 3.2-5. SCAQMD REGIONAL AIR QUALITY EMISSIONS SIGNIFICANCE THRESHOLDS

Regional Emissions Significance Criteria		
Pollutant	Construction	Operation
NO_x	100 lbs./day	55 lbs./day
VOC	75 lbs./day	55 lbs./day
PM10	150 lbs./day	150 lbs./day
PM2.5	55 lbs./day	55 lbs./day
So_x	150 lbs./day	150 lbs./day
CO	550 lbs./day	550 lbs./day

Source: SCAQMD 2013c

AQ-4: The Project exposes sensitive receptors to substantial pollutant concentrations.

SCAQMD published localized thresholds of significance (LST) that are used to determine impacts on ambient air quality for off-site sensitive receptors. The published LSTs for construction activities and project operations, as shown below in Table 3.2-6, were used in this EIR to determine the significance of Project air quality impacts. These criteria are based on CEQA thresholds recommended by the SCAQMD (SCAQMD 2013c). The emissions impacts of TACs are also evaluated under this impact statement, and SCAQMD's thresholds for air toxics impacts are also shown in Table 3.2-6.

TABLE 3.2-6. SCAQMD LST AND TACS AIR QUALITY EMISSIONS SIGNIFICANCE THRESHOLDS

Localized Significance Criteria		
Pollutant	Construction	Operation
NOx	112 lbs./day	112 lbs./day
CO	945 lbs./day	945 lbs./day
PM10	199 lbs./day	48 lbs./day
PM2.5	94 lbs./day	23 lbs./day
TACs (includes carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and Acute Hazard Index ≥ 1.0 (project increment)	

Source: SCAQMD 2013c

The Project is located in Source Receptor Area (SRA) 9 (East San Gabriel Valley). As the actual site acreage of the facility is 0.98 acres, the LSTs are based on a 1-acre site. The NO_x and CO thresholds that are based on hourly standards consider workers as receptors of concern, so the LST values shown above are based on a distance to receptor of 50 meters. The PM10 and PM2.5 thresholds are based on 24-hour standards, and since workers do not remain all day and there are no sensitive receptor locations (residences, schools, hospitals, etc.) located within a mile of the site in the area, a 500-meter receptor distance was used to determine the appropriate PM10 and PM2.5 LST values.

AQ-5: The Project creates objectionable odors affecting a substantial number of people.

Emission Calculations Methodology

Air pollutant emissions from the proposed construction and operation activities were calculated using the most current SCAQMD website and USEPA emission factors and methods, then compared to the thresholds identified in Tables 3.2-5 and 3.2-6 to determine their significance. For impacts that exceed a significance criterion, mitigation measures have been applied to reduce impacts to the extent feasible.

Construction Emissions

The Project's construction would involve demolition of existing concrete floors, soil excavation, and installation of new concrete floors and dikes, sumps, and truck ramps. Construction emissions would result from the use of construction equipment and trips generated by construction workers and heavy haul trucks, and from earth-moving activities and paved road travel that would cause fugitive dust emissions. Construction activities would generate emissions of criteria air pollutants VOCs, NO_x, CO, PM10, PM2.5, and sulfur oxides.

Equipment usage and scheduling data needed to calculate emissions for proposed construction activities were obtained from the applicant. Construction-related emissions are calculated using the following:

- On-road and off-road emission factors from the SCAQMD CEQA website for the year 2015, where the off-road emissions factors are adjusted to account for ARB's reduction in engine load factors used in the OFFROAD 2011 model, in comparison to the SCAQMD website emissions factors that are still based on the OFFROAD 2007 model with unadjusted engine load factors;
- USEPA AP 42 (USEPA 2014b) emission factor calculations for fugitive dust.

For more information on the construction emissions calculation methodology, assumptions, and the detailed calculations, please refer to Appendix A.

Operation Emissions

Operation emissions would result from off-site trips of on-road vehicles including heavy truck trips and employee commuting, and from propane forklift use. Operation-related emissions are calculated using the same procedures for the same emission source types as noted above for construction emissions, with the addition of using additional emission factor references and a worst-case propane fuel sulfur specification of 80 ppm for the determination of propane forklift emissions (USEPA 2014c, SDAPCD 1999, ARB 1998).

Environmental Controls

The applicant has not proposed any environmental controls directly related to reducing construction or operation air pollutant emissions, but fugitive dust emissions during construction would be controlled through compliance with SCAQMD rule 403.

Impact AQ-1: The Project would conflict with or obstruct implementation of the applicable air quality plan.

The proposed Project would produce emissions of nonattainment pollutants primarily from diesel-powered sources. The 2007 AQMP proposes emission reduction measures that are designed to bring the SCAB into attainment of the NAAQS and CAAQS. The attainment strategies in this plan include mobile source control measures and clean fuel programs that are enforced at the federal and State levels on engine manufacturers and petroleum refiners and retailers.

The SCAQMD adopts AQMP control measures into the SCAQMD rules and regulations, which are then used to regulate sources of air pollution in the SCAB. The Project would comply with these regulatory requirements. Therefore, the proposed Project's emissions sources would meet or exceed the emissions control forecasts for all approved AQMP control measures.

Since the 2007 AQMP assumes growth that is consistent with the implementation of this Project, it would not exceed the future growth projections in the 2007 AQMP, and it would not conflict with or obstruct implementation of the SIP. As a result, construction and operation of the proposed Project would conform to the applicable AQMP; therefore, no mitigation is required and impacts would be less than significant (Class III).

Impact AQ-2: The Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The proposed Project's air pollutant emissions well below the magnitude needed to cause an air quality standard violation or contribute substantially to an existing or projected air quality standard violation. Therefore, no mitigation is required and impacts are less than significant (Class III).

Also, please see the regional emissions analysis provided below under Impact AQ-3.

Impact AQ-3: The Project would result in 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Construction Impacts

Pollutant emission calculations related to the proposed Project construction activities are considered emissions from on-road vehicles and off-road equipment utilized during construction, and fugitive PM emissions resulting from on-road vehicle travel. Fuel combustion pollutant emissions were calculated using the on-road and off-road emissions factors available from the SCAQMD. The maximum daily regional emissions occur during the concrete pour for Phase 2A of construction (please see Section 2.4 for a description of the construction phasing). This particular construction activity does not include any off-road equipment use; therefore, the off-road equipment emissions during the maximum regional emissions day are zero. Detailed assumptions for the construction phases, including equipment and on-road vehicle use, are provided in Appendix A. Table 3.2-7 compares the maximum daily construction emissions of the Project with the SCAQMD regional significance thresholds.

TABLE 3.2-7. MAXIMUM DAILY CONSTRUCTION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road vehicles	1.09	6.52	9.16	0.02	0.44	0.37
Off-road equipment	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive dust	--	--	--	--	1.87	0.46
Total	1.09	6.52	9.16	0.02	2.32	0.83
SCAQMD Regional Significance Thresholds	75	550	100	150	150	55
Significant?	NO	NO	NO	NO	NO	NO

Source: Appendix A; SCAQMD 2013c

As shown in Table 3.2-7, construction of the Project would not result in emissions of criteria pollutants that exceed CEQA regional emissions significance thresholds established by the SCAQMD. Therefore, the Project would not contribute significantly to a cumulatively considerable net increase of any pollutants, and impacts are less than significant (Class III).

Operation Impacts

The operation emissions related to the proposed Project would result from an increase in truck and employee vehicle use. The on-road emissions estimates are based on the incremental traffic trip vehicle mileage within the South Coast Air Basin, which is the calculated vehicle mileage from the proposed Project minus the calculated baseline vehicle mileage conditions. These vehicle trip and mileage estimate calculations are provided in Appendix A. Table 3.2-8 compares the maximum daily operations emission of the Project with the SCAQMD regional significance thresholds.

TABLE 3.2-8. MAXIMUM DAILY OPERATION EMISSIONS (LBS/DAY)

	VOC	CO	NO_x	SO_x	PM10	PM2.5
On-road vehicles	4.56	21.74	49.63	0.10	2.47	2.06
Off-road equipment	0.03	1.09	0.64	0.05	0.08	0.08
Fugitive dust	--	--	--	--	11.57	2.84
Total	4.60	22.84	50.27	0.15	14.12	4.98
SCAQMD Regional Significance Thresholds	55	550	55	150	150	55
Significant?	NO	NO	NO	NO	NO	NO

Source: Appendix A; SCAQMD 2013c

As shown in Table 3.2-8, the Project's operation emissions would not exceed any of the significance thresholds established by SCAQMD. Therefore, impacts would be less than significant (Class III).

It should be noted that while the incremental transportation trip emissions are fully attributed to the proposed Project, the used oil and other waste streams would have to be transported from their generation sources to recycling or disposal sources with or without this Project. This air quality analysis does not consider the emissions that would have to occur regardless of the Project to ship used oil; therefore, this analysis is very conservative in terms of actual emissions increases that would occur within the air basin due to the proposed Project. As noted in the Alternatives Analysis (Section 5), the Project fulfills a need that must be filled and currently California does not have the capacity to recycle all of the used oil generated within the State, and part of the used oil generated within the State is currently shipped out of state for treatment or disposal. A specific comparison of transportation distances for waste oil that would occur with and without the Project cannot be reasonably determined; however, the Project may actually reduce the transportation distances that would otherwise be required.

Impact AQ-4: The Project would expose sensitive receptors to substantial pollutant concentrations.

SCAQMD LSTs are used to determine if a project could exceed ambient air quality thresholds for nearby receptors. The LSTs were established by SCAQMD for each SRA within their jurisdiction, and represent on-site emission levels that could cause ambient air quality standard exceedances or substantial contributions to existing exceedances at given distances from the site to nearby receptor locations.

Construction Impacts

The appropriate LSTs for Project site construction were compared to the assumed reasonably foreseeable maximum localized on-site daily construction emissions in Table 3.2-9.

TABLE 3.2-9. MAXIMUM DAILY LOCALIZED CONSTRUCTION EMISSIONS (LBS/DAY)

	CO	NO_x	PM10	PM2.5
On-road vehicles	0.00	0.00	0.00	0.00
Off-road equipment	0.68	3.72	3.88	0.01
Fugitive dust	--	--	Neg.	Neg.
Total	0.68	3.72	3.88	0.01
SCAQMD Localized Significance Thresholds	945	112	199	94
Significant?	NO	NO	NO	NO

Source: Appendix A; SCAQMD 2013c
Neg. = Negligible emissions

As shown above in Table 3.2-9 the estimated maximum daily localized construction emissions would remain under the SCAQMD localized significance thresholds for CO, NO_x, PM10, and PM2.5. The worst-case localized emissions case for construction is not the same as the worst-case regional emissions case as shown previously in Table 3.2-7. The regional emissions case is composed entirely of on-road equipment, while the localized emissions case is composed entirely of the on-site, off-road equipment during concrete slab removal.

Operation Impacts

The appropriate LSTs for Project site operation were compared to the assumed reasonably foreseeable maximum localized daily on-site operation emissions in Table 3.2-10.

TABLE 3.2-10. MAXIMUM DAILY LOCALIZED OPERATION EMISSIONS (LBS/DAY)

	CO	NO_x	PM10	PM2.5
On-road vehicles	1.09	2.48	0.12	0.10
Off-road equipment	1.09	0.64	0.08	0.08
Fugitive dust	--	--	1.41	0.50
Total	2.18	3.12	1.61	0.68
SCAQMD Localized Significance Thresholds	945	112	48	23
Significant?	NO	NO	NO	NO

Source: Appendix A; SCAQMD 2013c

The on-site operation emissions are assumed to be the on-site propane forklift emission and 5 percent of the on-road vehicle emissions. As shown above in Table 3.2-10, the proposed Project's operation would not exceed any of the localized emissions significance thresholds established by the SCAQMD. Therefore, impacts would be less than significant. (Class III)

TAC Emissions Impacts

The proposed Project's TAC emissions and health risk potential are primarily associated with the DPM emissions from the haul trucks during operation. The emissions of acutely hazardous pollutants are negligible so the potential health risks are all related to long-term exposure. Additionally, the construction emissions are low and the duration is short, so the construction emissions are not of concern in relation to the potential long-term health risk impacts. SCAQMD publishes pollutant-based screening level values to assess the potential for health risks (SCAQMD 2013c), but does not provide values beyond 100 meters, while the Project's nearest residential receptors are located approximately a mile (over 1,6000 meters) from the Project site. Therefore, a simplified risk analysis, using SCAQMD mobile source risk guidelines (SCAQMD 2003b), for the Project's operating DPM emissions was performed using worst case SCREEN3 dispersion modeling and receptors located at 100 meters (off-site workers) and 1,600 meters (residential receptors) to determine the worst-case cancer and chronic health risks from on-site Project emissions. The screening level modeling and health risk calculation approach was selected due to the relatively low level of Project DPM emissions and the long distances from the Project site to the residential and off-site worker receptor locations.

A more refined, and less conservative, modeling analysis would have been performed if the screening level analysis found impacts to be greater than the SCAQMD significance thresholds. However, the screening level analysis found the health impacts to be less than the SCAQMD significance thresholds, so additional refined modeling and risk impact analyses were unnecessary for CEQA impact determination. The results of this screening level health risk analysis are provided in Table 3.2-11.

TABLE 3.2-11. HEALTH RISK FROM ON-SITE EMISSIONS

Receptor/Risk Case	Risk Value	Risk Threshold
Maximum Residential Cancer Risk	0.14×10^{-6}	10×10^{-6}
Maximum Off-site Worker Cancer Risk	2.5×10^{-6}	10×10^{-6}
Maximum Residential Chronic Health Index	0.00021	1
Maximum Off-site Worker Chronic Health Index	0.0058	1

Source: Appendix A

This simplified and conservative health risk assessment does not factor in reductions in mobile source DPM that would be expected to occur over time as a result of federal and State DPM emissions reductions programs. As Table 3.2-11 indicates, the risk values, even using very conservative modeling and calculation assumptions, are below the significance thresholds of 10 in a million for cancer risk and 1.0 for the chronic health index. Based on the low population immediately surrounding the site, it is assumed that the total Project cancer burden is well below 0.5. Therefore, the proposed Project's TAC emissions impacts are less than significant (Class III).

Impact AQ-5: The Project would create objectionable odors affecting a substantial number of people.

The construction and operation of the facility do not include the use of odorous substances or activities that could cause significant odors. Used oil, waste antifreeze, and the other wastes that will be transported to the site do not have strong objectionable odors and they have very low vapor pressures and so will be emitted to the atmosphere in negligible quantities. Additionally, the proposed Facility operations are subject to compliance with SCAQMD Rule 402 that will ensure that the Project will not create objectionable odors affecting a substantial number of people. Therefore, there will be less than significant impacts related to odors (Class III).

Climate Change

Significance Criteria

Appendix G of the CEQA Guidelines allows the lead agency discretion in how to address and evaluate significance based on these criteria. According to these Guidelines the following criteria may be considered to establish the significance of GCC emissions (AEP 2011).

Would the Project:

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

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. For industrial projects, a significance threshold of 10,000 metric tons of CO2e emissions per year was determined. Construction GHG emissions are required to be included, amortized over the project life, in the project's annual GHG emissions totals.

Considering these guidelines, the following thresholds are used in this EIR to determine the significance of Project GCC impacts.

GCC-1: The Project would produce GHG emissions that exceed the SCAQMD CO2e annualized significance threshold.

GCC-2: The Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Emissions Calculations Methodology

GHG emissions were calculated based on methodologies provided in The Climate Registry – General Reporting Protocol (TCR 2013) (TCR Protocol), and emissions factors for the TCR Protocol updated in 2014 (TCR 2014). The TCR Protocol is the guidance document that TCR members, which includes the State of California, use to prepare annual GHG inventories for the Registry.

Direct GHG emissions would result from fuel use from proposed construction and operation activities. Indirect emissions would occur from an increase in on-site electricity use during operation, while the incremental on-site electricity consumption from construction activities would be negligible.

Impact GCC-1: The Project would produce GHG emissions that exceed the SCAQMD CO2e annualized significance threshold.

The Project would generate GHG emissions through construction and operation activities. The Project-related construction sources for which GHG emissions were calculated include (1) off-road diesel construction equipment, (2) on-road trucks, and (3) worker commute vehicles. Per SCAQMD interim guidance for assessing industrial project impacts, the construction emissions are amortized over the project life, which is considered to be a 20-year period for this Project, and added to the annual operating emissions in order to determine their contribution to annual emissions over the lifetime of the Project.

Table 3.2-12 summarizes total annualized GHG emissions generated from Project construction and operation. The California CO2e emissions are compared against the SCAQMD interim threshold.

TABLE 3.2-12. ALTERNATIVE 1 - ANNUAL GHG EMISSIONS (METRIC TONS)

	CO2e
Construction	
On-road vehicles	19.31
Off-road equipment	3.62
Total	22.93
Amortized construction emissions (20-year life)	1.15
Operation	
On-site off-road vehicles	29.31
On-road vehicles	1,246.35
Electricity Use (indirect emissions)	61.23
Total annualized emissions	1,338
SCAQMD Significance Threshold for Industrial Sources	10,000
Significant Contribution?	NO

Source: Appendix A; SCAQMD 2013c

As noted previously below Table 3.2-8, the incremental transportation trip emissions are fully attributed to the proposed Project, even though the Project may actually reduce the transportation distances that would be required without the proposed Project. This greenhouse gas emissions analysis does not consider the emissions that would have to occur regardless of the Project to ship used oil; therefore, this analysis is conservative in terms of actual emissions increases that would occur due to the proposed Project. Regardless, as shown above in Table 3.2-12, the annual GHG emissions associated with Project construction and operation would be below the SCAQMD interim significance threshold of 10,000 MT of CO2e per year; therefore, the Project would have less than significant GHG emissions impacts. (Class III)

Impact GCC-2: The Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

A summary of the proposed Project's compliance with potentially applicable GHG plans, policies, and regulations is provided in Table 3.2-13.

TABLE 3.2-13. PROJECT CONSISTENCY WITH APPLICABLE PLANS, POLICIES, AND REGULATIONS FOR GHG EMISSIONS

Adopted Plan, Policy, or Regulation	Consistency Determination	Proposed Project Consistency
Federal		
40 CFR Part 98. Mandatory Reporting of Greenhouse Gases Rule.	Not Applicable	The Project would not have emissions sources that would be subject to this regulation.
40 CFR Part 52. Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.	Not Applicable	The Project would not have emissions sources that would be subject to this regulation.
State		
AB 32. Annual GHG Emissions Reporting	Not Applicable	The Project does not include emissions sources that would be subject to this regulation.
AB 32. Cap-and-trade	Not Applicable	The project does not include emissions sources that would be subject to this regulation.
Local		
SCAQMD Rules 2701 and 2702	Not Applicable	The Project is not proposing a GHG emissions reduction project.

The Office of the California Attorney General maintains a website that addresses mitigation for greenhouse gases (OAG 2014). This website provides links to documents that list potential CEQA mitigations for global climate change impacts. These documents tend to focus on the discussion of measures that are recommended to be added to planning documents, rather than the identification of measures that would be applicable to specific types of development projects. From these documents specific mitigation measures that could be relevant to the proposed Project have been identified and listed below in Table 3.2-14. This table identifies the applicability of each strategy and the project design feature or mitigation measure that is proposed to comply with the applicable strategies.

TABLE 3.2-14. CALIFORNIA GHG REDUCTION STRATEGIES

Strategy	Project Design/Mitigation to Comply with Strategy
Vehicle Climate Change Standards	These are ARB enforced standards; vehicles that access the project that are required to comply with the standards would comply with these strategies.
Limit Idling Time for Commercial Vehicles	Project vehicles would be required to comply with ARB idling restriction regulations.
Waste Reduction/Increase Recycling	This measure not directly applicable on a project level; however, the project would recycle used oil which would reduce climate change emissions associated with energy intensive material extraction and production.
Construction and Demolition Waste Reduction	Mitigation Measure GHG-2.1 is proposed to ensure that construction wastes are recycled as feasible. With this mitigation measure the project's construction and operation would be consistent with this recycling goal.
Increase Water Use Efficiency	Not directly applicable to the proposed Project. The incremental water and electricity use for the project is minimal.
Building Energy Efficiency Standards	Not directly applicable to the proposed Project. The applicant leases and does not own the project site.
Appliance Energy Efficiency	New electric motors required for the Project would have to comply with the efficiency requirements of this regulation that are enforced by the California Energy Commission.
Green Buildings Initiative	Not directly applicable to the Project. The applicant leases and does not own the project site.
California Solar Initiative	Not directly applicable to the Project. The applicant leases and does not own the project site.

Source: OPR 2008; CAPCOA 2009

The Project's primary purpose of certifying used oil as recycled oil conforms with the State's goal to increase material recycling, which would reduce climate change emissions associated with energy-intensive material extraction and production, in this case petroleum extraction and refining. However, the construction of the project would cause the generation of wastes that should be recycled to reduce greenhouse gas emissions associated with the production of new materials. Therefore, Mitigation Measure (MM) GCC-2.1 is proposed to ensure that appropriate construction wastes are recycled to the extent feasible.

MM GCC-2.1: Construction Waste Recycling

The generated construction wastes, specifically concrete and wall board wastes, shall be recycled to the extent feasible given the ability for the wastes to meet necessary quality standards for recycling.

In summary, with MM GCC-2.1, the proposed Project will conform to State and local GHG emissions/climate change regulations and policies/strategies; therefore, the proposed Project would have less-than-significant GHG impacts after mitigation (Class II).

3.3 Biological Resources

This section describes the environmental and regulatory settings for the construction and operation of the Proposed Project (Project) with respect to vegetation and wildlife resources on the Project site and in the Project study area.

The Project site is described in detail in the Project Description (Section 2) and is comprised of 0.98 acres of land with a currently operating waste recycling facility in an existing industrial building, with a paved parking lot and small landscaping areas with ornamental vegetation. Construction and operation of the Project would take place within the existing industrial building and paved parking lot. The existing landscaped areas and ornamental vegetation would not be affected.

The *Project study area* addressed in this subsection encompasses the Project site and its vicinity, including the Santa Fe Dam Recreation Area (SFDRA) and adjacent lands and, for the purposes of analysis of vegetation and wildlife resources, is bounded by the 210 Freeway on the north, Arrow Highway on the south, Irwindale Avenue on the east, and the 605 Freeway on the west. The Project study area is the limit of the area likely to be affected by construction and operation of the Project with respect to vegetation and wildlife resources.

3.3.1 Existing Conditions

Environmental Setting

The Project site is on private land located in the City of Irwindale in Los Angeles County, and is surrounded by other commercial and industrial properties (see Figure 2-1 in Section 2). The site is in Township 1 South, Range 10 West, Section 4, as shown on the Baldwin Park 7.5-minute USGS topographic quad. Elevation of the site is approximately 520 feet above sea level and the topography of the Project site and surrounding industrial areas is relatively flat.

About 350 feet to the north of the Project site is approximately 40 acres of native habitat isolated from the SFDRA and other natural habitat by other industrial development. This area is within the Project study area, but not part of the SFDRA. Historical aerial photographs show that a sand and gravel operation occupied/disturbed at least 25 of the 40 acres during the early 1900s, but there does not appear to have been any ground disturbing activity on this land for over 70 years (DEC 2011). There are other industrial and commercial properties, a paved public roadway, and railroad tracks between the Project site and this area of habitat. For the purposes of analysis of vegetation and wildlife resources, this area of habitat is grouped with the SFDRA. The SFDRA is located to the south, west, and northwest of the Project site. Native habitat contiguous with the SFDRA is within approximately 860 feet of the Project site at its closest point (south of the Project site) and there are other industrial and commercial properties and paved public roads between the Project site and the SFDRA in every direction. The Project site is approximately 0.3 miles (about 1,700 feet) from the SFDRA Nature Center (see Figure 2-1 in Section 2).

The SFDRA is an 836-acre facility operated by the County of Los Angeles Department of Parks and Recreation (LA County 2014). The Santa Fe Dam and Reservoir were constructed in the 1940s by the U.S. Army Corps of Engineers (USACE), and continue to be operated by the USACE (Strong 2004). In addition to undeveloped areas that support native habitat, the SFDRA has developed recreation facilities, including a 70-acre fishing lake, a five-acre chlorinated swim beach, a water play area, picnic areas, campsites, and recreational trails (LADPW 2006, LA County 2014). Other land uses in or adjacent to the SFDRA are groundwater recharge basins and an electrical transmission corridor.

The SFDRA is within the San Gabriel Canyon Significant Ecological Area (SEA). The SEA designation is given to land that supports irreplaceable biological resources, and SEAs are mapped as a zoning overlay in the Los Angeles County General Plan (LADRP 2014). Development within the SEAs is regulated by Los Angeles County Ordinance (Hillside Management and Significant Ecological Areas Ordinance) intended to preserve the biological resources and sustainability of the SEAs (LADRP 2014). The SFDRA received the SEA designation due to the presence of moderate to high-quality alluvial fan sage scrub, lowland riparian, and freshwater marsh habitats (LADPW 2006). The Project site is not within the boundaries of the SEA.

In 2003, Congress authorized the National Park Service (NPS) to study the natural and cultural resources and recreation potential of the San Gabriel watershed, including the SFDRA, for possible inclusion in the National Park System. The San Gabriel Watershed and Mountains Special Resources Study was finalized in 2013. In this report, the NPS recommended that Congress incorporate an area of the San Gabriel watershed, including the SFDRA, into a new San Gabriel Unit of the Santa Monica Mountains National Recreation Area. Implementation of this recommendation requires Congressional legislation (NPS 2013a), which has not occurred as of February 2014. If implemented in the future, the inclusion of the SFDRA in the National Park System would have no effect on regulation or ownership of private lands (NPS 2013b), and would therefore not affect the Project site.

Methods

A biological reconnaissance survey of the Project site was conducted by biologist Carla Wakeman of Aspen Environmental Group (Aspen) on February 13, 2014. No native habitat or wildlife species were observed or detected on the Project site during the survey. Any potential for native species to utilize the Project site was noted during the survey and is discussed below.

Prior to the biological reconnaissance survey, Aspen biologists reviewed available literature to identify special-status biological resources known from the vicinity of the Project site. The literature and databases listed below were reviewed:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB 2014) for the following 7.5-minute USGS topographic quads: Azusa, Baldwin Park, El Monte, Glendora, La Habra, Mount Wilson, San Dimas, Whittier, and Yorba Linda.
- California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2014), for the topographic quads listed above, provided data on the California Rare Plant Ranks (CRPR) which correspond to the former CNPS rare plant list system.
- CDFW Special Animals List (CDFW 2011).
- Recent environmental documents for nearby projects: the Veolia Project (DTSC 2010) and the Santa Fe Dam Sediment Stockpile Management Project (USACE 2013).

Based on review of the literature and databases listed above, and on Aspen biologists' extensive experience with the flora and fauna of Southern California, lists of special-status plants (see Table 3.3-2) and wildlife (see Table 3.3-3) with potential to occur in the Project study area were compiled. Plant and wildlife taxa were considered to be special-status species if they were classified as one or more of the categories listed in Table 3.3-1.

TABLE 3.3-1. DEFINITIONS OF SPECIAL-STATUS SPECIES

Species Designation	Agency	Definition
Federal Endangered	USFWS	A species that is in danger of extinction throughout all or a significant portion of its range.
Federal Threatened	USFWS	A species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
Federal Candidate	USFWS	A species the US Fish and Wildlife Service (USFWS) has designated as a candidate for listing under Section 4 of the federal Endangered Species Act (ESA), published in its annual candidate review, and defined as a species that has sufficient information on its biological status and threats to propose it as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities.
Federal Proposed	USFWS	A species that the USFWS has proposed for listing under Section 4 of the ESA, by publishing a Proposed Rule in the Federal Register.
Protected under the federal Bald and Golden Eagle Protection Act (BGEPA)	USFWS	Bald and golden eagles are fully protected.
Bird of Conservation Concern (BCC)	USFWS	Bird species (other than those already designated as Federally threatened or endangered) that represent the USFWS's highest conservation priorities
State Endangered	CDFW	A species that is in serious danger of becoming extinct throughout all or a significant portion of its range due to one or more causes, including loss or change in habitat, overexploitation, predation, competition, or disease.
State Threatened	CDFW	A species that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.
State Candidate	CDFW	A species that has been officially noticed by the California Fish and Game Commission as being under review by the CDFW for addition to the threatened or endangered species lists. CDFW candidate species are given no extra legal protection under state laws.
Fully Protected (FP)	CDFW	Animal species fully protected under the California Fish and Game Code. The CDFW may not issue take authorization except for scientific purposes or as provided under SB 618 (2011).
Species of Special Concern (SSC)	CDFW	A species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: Is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; Is on the federal, but not state list, of threatened or endangered species; Meets the state definition of threatened or endangered but has not formally been listed; Is experiencing or formerly experienced serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; or Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that if realized, could lead to declines that would qualify it for state threatened or endangered status. SSC is an administrative designation and carries no formal legal status. This designation is intended to focus attention on animals at conservation risk, to stimulate research on poorly known species, and to achieve conservation and recovery before these species meet the California Endangered Species Act

TABLE 3.3-1. DEFINITIONS OF SPECIAL-STATUS SPECIES

Species Designation	Agency	Definition
		(CESA) criteria for listing. California SSC are considered under the California Environmental Quality Act (CEQA) and require a discussion of impacts and appropriate mitigation to reduce impacts.
Watch List (WL)	CDFW	Taxa that were previously SSCs but no longer merit SSC status or which do not meet SSC criteria, but for which there is concern and a need for additional information to clarify status.
Protected	CDFW	An animal species that is not federally or state listed, FP, or SSC, but is protected under the California Fish and Game Code.
Special Animal	CDFW	An animal species that is tracked in the CNDDB, but has no other status at the state or federal level.
CRPR 1A	CDFW	Plants presumed to be extinct in California.
CRPR 1B	CDFW	Plants rare or endangered in California and elsewhere.
CRPR 2	CDFW	Plants rare or endangered in California but more common elsewhere.
CRPR 3	CDFW	Plants about which more information is needed – a review list.
CRPR 4	CDFW	Plants of limited distribution – a watch list.

In this context, species refers to a taxonomic entity and can include sub-species, varieties, population segments, or other genetically or geographically distinct units. Most designated CRPR species also have "threat ranks" as an extension to the rank number, which designates the level of endangerment by a 0.1 to 0.3 ranking. A threat rank of 0.1 indicates that a plant is seriously endangered in California (high degree/immediacy of threat), 0.2 indicates that a plant is fairly endangered in California (moderate degree/immediacy of threat), and 0.3 indicates that a plant is not very endangered in California (low degree/immediacy of threats or no current threats known). All CRPR 1A and some CRPR 3 plants lacking any threat information receive no threat code extension.

Vegetation

The vegetation on the Project site is limited to small landscaped areas along Martin Road and in the paved parking lot. Plants in these areas are regularly maintained sod grass and ornamental flowers, shrubs, and trees. The non-native ornamental plants are typical of landscaped areas in Southern California, and are not invasive. There is no native vegetation on the Project site.

Vegetation in the Project study area includes ornamental trees and maintained lawns in other commercial or industrial areas and in the SFDRA-developed recreation areas; ruderal (weedy) areas around the Santa Fe Dam, and along the access roads, trails, and dirt parking areas in the SFDRA; disturbed native scrub and ruderal areas throughout the groundwater recharge basins; native riparian along the San Gabriel River and in the basin upstream of the Dam; and native scrub in the southeast portion of the SFDRA (USACE 2013).

Sensitive Natural Communities. No sensitive natural communities were found on the Project site and there is no potential for sensitive natural communities to occur on the Project site.

Sensitive natural communities present or potentially present in the Project study area are Riversidian Alluvial Fan Sage Scrub, Southern Willow Scrub, Southern Sycamore Alder Riparian Woodland, Southern Coast Live Oak Riparian Forest, Coastal Sage Scrub, and California Walnut Woodland (PCR 2000, USACE 2013, CNDDB 2014).

Special-Status Plants

Table 3.3-2 lists the special-status plant species known from the region and summarizes their habitat and distribution, conservation status, and potential for occurrence on the Project site and in the Project study area. The potential for occurrence of a species is assessed based on the following criteria:

Present: Observed within the Project study area during surveys or documented in the Project study area.

High: Documented within the Project vicinity (within 5 miles) and suitable habitat found within the Project study area; but not detected on the Project site during Project-specific biological surveys.

Moderate: Either documented within the Project vicinity (within 5 miles), or suitable habitat found within the Project study area, and the Project study area is within species' known geographic range.

Low: No records within the Project vicinity (within 5 miles), the habitat is marginal, or the species is conspicuous and was not detected during biological surveys.

Not Likely to Occur: No known records exist and the site lacks suitable habitat requirements.

Absent: No suitable habitat present and existing land use or characteristics preclude the possibility of the species being present in the area.

TABLE 3.3-2. SPECIAL-STATUS PLANTS PRESENT OR WITH POTENTIAL TO OCCUR IN THE PROJECT STUDY AREA

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur
Calochortus plummerae Plummer's mariposa lily	Federal – None State – None CRPR – 4.2	Perennial herb; chaparral, cismontane woodland, coastal scrub, lower montane coniferous forests, valley and foothill grasslands; granitic and rocky areas; 100-1700 m.	May – Jul	Absent from the Project site. No suitable habitat present. Moderate potential to occur in SFDRA.
Chorizanthe parryi var. parryi Parry's spineflower	Federal – None State – None CRPR – 1B.1	Annual herb; chaparral, coastal scrub (sandy or rocky openings); 40 - 1705 m.	Apr – Jun	Absent from the Project site. No suitable habitat present. Moderate potential to occur in SFDRA.
Dodecahema leptoceras Slender-horned spineflower	Federal – Endangered State – Endangered CRPR – 1B.1	Annual herb; chaparral, cismontane woodland, coastal scrub; sandy areas, alluvial fan; 200-760 m.	Apr – Jun	Absent from the Project site. No suitable habitat present. Low potential to occur in SFDRA.
Horkelia cuneata ssp. puberula Mesa horkelia	Federal – None State – None CRPR – 1B.1	Perennial herb; cismontane woodland, coastal scrub (sandy or gravelly); 70-810 m.	Feb – Jul	Absent from the Project site. No suitable habitat present. Present in SFDRA.
Juglans californica Southern California black walnut	Federal – None State – None CRPR – 4.2	Perennial deciduous tree; alluvial areas in chaparral, cismontane woodland, coastal scrub; 50-900 m.	Mar – Aug	Absent from the Project site. No suitable habitat present. Present in SFDRA.

TABLE 3.3-2. SPECIAL-STATUS PLANTS PRESENT OR WITH POTENTIAL TO OCCUR IN THE PROJECT STUDY AREA

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur
Lepidium virginicum var. robinsonii Robinson's pepper-grass	Federal – None State – None CRPR – 4.3	Annual herb; chaparral, coastal scrub; 1–885 m.	Jan – Jul	Absent from the Project site. No suitable habitat present. Moderate potential to occur in SFDRA.
Pseudognaphalium leucocephalum White rabbit-tobacco	Federal – None State – None CRPR – 2B.2	Perennial herb; chaparral, cismontane woodland, coastal scrub, riparian woodland (sandy, gravelly); 0-2100 m.	Jul – Dec	Absent from the Project site. No suitable habitat present. Low potential to occur in SFDRA.

Source: CNPS 2014, CNDDB 2014, Long 2009, PCR 2000.

Listed Threatened or Endangered Species. No federal- or State-listed threatened or endangered plant species were found on the Project site. There is no potential habitat for federal- or state-listed threatened or endangered plant species in or on the existing structure or paved parking lot. Regular mowing and maintenance (e.g., weed removal) of the vegetated landscaping areas would make it highly unlikely that any special-status plant species could become established there. The Project area is not within designated critical habitat for any federally listed threatened or endangered species.

Other Special-Status Plant Species. No special-status plant species were found on the Project site. There is no potential habitat for special-status plant species in or on the existing structure or paved parking lot. Regular mowing and maintenance (e.g., weed removal) of the vegetated landscaping areas would make it extremely unlikely that any special-status plant species could become established there.

Common Wildlife

Common wildlife species that may be found on the Project site are small reptiles such as western fence lizards (*Sceloporus occidentalis*), birds such as house sparrows (*Passer domesticus*) and house finches (*Carpodacus mexicanus*), and small mammals such as cottontail rabbits (*Sylvilagus audubonii*). Larger mammals such as Virginia opossums (*Didelphis virginiana*) and raccoons (*Procyon lotor*) may opportunistically forage on the Project site. Common passerines (perching birds) may nest on the structure or in the ornamental trees or shrubs. Common bat species may roost on the structure or in the ornamental trees.

Nesting Birds

Nesting birds are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. The ornamental trees and shrubs in the landscaped areas provide potential nesting sites for common bird species. No listed or special-status bird species are likely to nest there.

Special-Status Wildlife

Table 3.3-3 presents the special-status wildlife species known from the region and summarizes their habitat, conservation status, and potential for occurrence on the Project site and in the Project study area. The potential for occurrence is assessed based on the same criteria as listed under Special-Status Plant Species above.

TABLE 3.3-3. SPECIAL-STATUS WILDLIFE PRESENT OR WITH POTENTIAL TO OCCUR

Species	Status	Habitat	Potential to Occur
INVERTEBRATES			
Danaus plexippus Monarch butterfly	Federal: none State: Special Animal	Variety of habitats; larvae feed only on the leaves of milkweed (*Asclepias* spp.). Western populations migrate to Calif coast to overwinter.	Not likely on the Project site. Ornamental trees provide potential temporary roosting habitat, but low probability of use. Not likely in SFDRA.
AMPHIBIANS			
Spea hammondii Western spadefoot	Federal: none State: SSC	Breeds in quiet streams, temporary ponds, vernal pools, burrows in sand during dry season; sea level to about 4500 ft. elev.; Central Val to N Baja.	Absent from the Project site. No suitable habitat present. Low potential to occur in SFDRA.
REPTILES			
Aspidoscelis tigris stejnegeri Coastal whiptail	Federal: none State: Special Animal	Woodlands, shrublands; SW Calif. through much of Baja Calif. , below about 7500 ft. elev.	Not likely on the Project site. No suitable habitat present; unlikely to forage in landscaped areas. Present in SFDRA.
Phrynosoma blainvillii Coast horned lizard	Federal: none State: SSC	Variety of habitats including coastal scrub, chaparral, grasslands, coniferous forests, oak woodlands, riparian, and high-elevation desert margins; prefers areas with loose, fine soils, an abundance of open basking sites, and native ants for feeding.	Not likely on the Project site. No suitable habitat present; unlikely to forage in landscaped areas. Present in SFDRA.
Salvadora hexalepis virgultea Coast patch-nosed snake	Federal: none State: SSC	Shrublands, usually with open sand; Sta. Barb. Co. through SW Calif., to NW Baja Calif.; sea level to about 7000 ft. elev.	Not likely on the Project site. No suitable habitat present; unlikely to forage in landscaped areas. Low potential to occur in SFDRA.
Thamnophis hammondii Two-striped garter snake	Federal: none State: SSC	Perennial and intermittent streams and ponds in chaparral, oak woodland, and forest habitats; may occupy adjacent grassland and coastal scrub habitats in winter.	Absent from the Project site. No suitable habitat present. Low potential to occur in SFDRA.
BIRDS			
Accipiter cooperii Cooper's hawk	Federal: none State: Watch List (nesting)	Nests and hunts in forest & woodland, also forages in open areas; most of U.S., Central and S America.	Low potential on the Project site. No suitable nesting habitat, but some potential for hunting around structure. Present in SFDRA and has been observed to nest there.
Agelaius tricolor Tricolored blackbird	Federal: none State: SSC (nesting colony)	Breeds colonially in freshwater marshes, nomadic among marshes and fields in winter; almost completely endemic to Calif.	Absent from the Project site (nesting). No suitable nesting habitat present. Present in SFDRA with moderate potential to nest there.
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	Federal: none State: Watch List	Coastal sage scrub, open chaparral; S Calif. and NW Baja Calif.; not migratory.	Not likely on the Project site. No suitable habitat present; unlikely that this species would forage in landscaped areas. Low potential to occur in SFDRA.

TABLE 3.3-3. SPECIAL-STATUS WILDLIFE PRESENT OR WITH POTENTIAL TO OCCUR

Species	Status	Habitat	Potential to Occur
Athene cunicularia Burrowing owl	Federal: BCC State: SSC	Nests mainly in rodent burrows, usually in open grassland or shrubland; forages in open habitat; increasingly uncommon in S Calif; occurs through W U.S. and Mexico.	Absent from the Project site. No suitable habitat present. Present in SFDRA.
Buteo swainsonii Swainson's hawk	Federal: BCC State: Threatened (nesting)	Breeds in trees in open habitats (e.g., grassland), Central Valley (Calif) and east to central U.S., S Canada, N Mexico; winters in S America. A few nesting records in W Mojave Desert (e.g., Lancaster area).	Absent from the Project site (nesting). No suitable nesting habitat present and Project site is outside the breeding range. May fly over Project site during migration. Present in SFDRA during migration; not observed to nest there.
Campylorhynchus brunneicapillus sandiegensis Coastal cactus wren	Federal: BCC State: SSC (San Diego and Orange Counties only)	Coastal sage scrub with cactus patches; S Calif. (San Diego and Orange Cos.) and NW Baja Calif.	Absent from the Project site. No suitable habitat present. Present in SFDRA.
Empidonax traillii Willow flycatcher	Federal: BCC State: Endangered (nesting)	Summer resident in wet meadow and montane riparian habitats in Sierra and Cascade Mts.; migrant in lower elevation riparian throughout Calif. Nests along Santa Clara and Santa Inez Rivers.	Absent from the Project site (nesting). No suitable nesting habitat present. May fly over Project site during migration. Present in SFDRA during migration; no record of nesting there.
Falco columbaris Merlin	Federal: none State: Watch List (wintering)	Uncommon in winter in S Calif desert and valleys (breeds in northern N America and Eurasia).	Low potential on the Project site (wintering). No nesting habitat; ornamental trees provide potential roosting sites, but habitat is marginal; some potential for occasional foraging. Present in SFDRA during migration.
Icteria virens Yellow-breasted chat	Federal: none State: SSC (nesting)	Breeds in dense riparian habitat, gen below about 4500 ft.; much of US; becoming rare in Calif. due to cowbirds & habitat loss; winters in Cent. America.	Absent from the Project site (nesting). No suitable nesting habitat. Present in SFDRA and observed to nest there.
Polioptila californica californica Coastal California gnatcatcher	Fed: Threatened State: SSC	Coastal sage scrub; SW Calif. and N Baja Calif.; not migratory.	Absent from the Project site. No suitable habitat. Present in SFDRA.
Vireo bellii pusillus Least Bell's vireo	Federal: Endangered State: Endangered	Riparian woodland and shrubland; breeds in S Calif. and N Baja, sea level to 1500-2000 ft. elev (one report at 2800 ft.); winters in Baja.	Absent from the Project site. No suitable habitat. Present in SFDRA.
MAMMALS			
Antrozous pallidus Pallid bat	Federal: none State: SSC	Roosts in caves, crevices, rock outcrops, hollow trees, structures; mostly below about 6000 ft elev; Calif, SW N Amer through interior Oregon and Washington; hibernates in winter.	Low potential on the Project site. May forage over the area. Ornamental trees and structure may provide potential roosting sites, but habitat is marginal. Moderate potential to occur in SFDRA.

TABLE 3.3-3. SPECIAL-STATUS WILDLIFE PRESENT OR WITH POTENTIAL TO OCCUR

Species	Status	Habitat	Potential to Occur
Eumops perotis californicus Western mastiff bat	Federal: none State: SSC	Lowlands (with rare exceptions); central and S Calif, S Arizona, NM, SW Texas, N Mexico; roost in deep rock crevices, forage over wide area.	Low potential on the Project site. May forage over the area; no potential roosting habitat. Moderate potential to occur in SFDRA.
Lasiurus xanthinus Western (Southern) yellow bat	Federal: none State: SSC	Mexico and Central America, to S Arizona, S Calif.; riparian and wash habitats; roosts in trees; evidently migrates from Calif during winter.	Low potential on the Project site. May forage over the area. Ornamental trees provide potential roosting sites, but habitat is marginal. Moderate potential to occur in SFDRA.
Nyctinomops femorosaccus Pocketed free-tailed bat	Federal: none State: SSC	Deserts and arid lowlands, SW U.S., Baja Calif, mainland Mexico; Roost mainly in crevices of high cliffs; forage over water and open shrubland.	Low potential on the Project site. May forage over the area; no potential roosting habitat. Moderate potential to occur in SFDRA.
Nyctinomops macrotis Big free-tailed bat	Federal: none State: SSC	Roosts in crevices of rocky cliffs, scattered localities in W N America through Central America; ranges widely from roost sites; often forages over water.	Low potential on the Project site. May forage over the area; no potential roosting habitat. Moderate potential to occur in SFDRA.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Federal: none State: SSC	Most habitat types, especially shrublands; W Calif. and NW Baja Calif.	Low potential on the Project site. No suitable habitat present; low potential for this species to use landscaped areas to forage. Present in SFDRA.
Taxidea taxus American badger	Federal: none State: SSC	Mountains, deserts, interior valleys where burrowing animals are avail as prey and soil permits digging; throughout central and W N America.	Absent from the Project site. No suitable habitat. Moderate potential to occur in SFDRA.

Source: CNDDB 2014, eBird 2014, CDFW 2011, PCR 2000.

Listed Threatened or Endangered Species. No federal- or state-listed threatened or endangered wildlife species were found on the Project site. There is no potential habitat for federal- or state-listed threatened or endangered wildlife species in or on the existing structure or paved parking lot. The Project area is not within designated critical habitat for any federally listed threatened or endangered species.

Other Special-status Raptors. In addition to raptors (birds of prey) listed in Table 3.3-3, several other special-status raptors have been observed at the SFDRA (eBird 2014), and may occasionally fly over the Project site. There is no nesting habitat on the Project site for these species and they are not likely to be found there. These species include peregrine falcon (*Falco peregrinus*; FP (nesting)), northern harrier (Circus cyaneus; SSC (nesting)), sharp-shinned hawk (*Accipiter striatus*; WL (nesting)), osprey (*Pandion haliaetus*; WL (nesting)), and white-tailed kite (*Elanus leucurus*; FP (nesting)).

Other Special-status Birds. In addition to the birds listed in Table 3.3-3, other special-status passerines, shorebirds, and waterfowl have been observed at the SFDRA (eBird 2014), and may occasionally fly over the Project site. There is no nesting habitat on the Project site for these species and they are not expected to be found there. These species include brown pelican (*Pelecanus occidentalis*; FP (nesting colony and communal roosts)), olive-sided flycatcher (*Contopus cooperi*; SSC (nesting)), redhead (*Aythya americana*; SSC (nesting)), yellow warbler (*Setophaga petechia*; SSC (nesting)), Vaux's swift (*Chaetura vauxi*; SSC (nesting)), loggerhead shrike (*Lanius ludovicianus*; SSC (nesting)), American white pelican (*Pelecanus erythrorhynchos*; SSC (nesting colony)), yellow-headed blackbird (*Xanthocephalus xanthocephalus*; SSC (nesting)), and grasshopper sparrow (*Ammodramus savannarum*; SSC (nesting)).

Special-status Bats. As listed in Table 3.3-3, a number of special-status bat species have some potential to fly or forage over the Project site. All special-status bats in the region are insectivorous, catching their prey either on the wing or on the ground. Some species feed mainly over open water where insect production is especially high, but others forage over open shrublands such as found on the SFDRA.

During the winter, some bats hibernate or migrate south and are not active in the area. During the remainder of the year, bats are active in the area and generally roost during the day, either alone or in communal roost sites, depending on species. Individual pallid bat and western yellow bat, if present in the area, could potentially day roost on the ornamental trees or the exterior of the structure on the Project site, but the habitat is marginal. The potential habitat for communal, hibernation, or maternity bat roosts on the ornamental trees or the exterior of the structure on the Project site is very limited and marginal.

Monarch Butterfly Migration. Native and non-native ornamental trees on the Project site or in the Project study area could potentially be used as temporary roosting sites by monarch butterflies during migration. Monarch butterflies migrate over long distances and the wintering grounds for most of the western population are within a coastal strip from Los Angeles to Monterey. The International Union for Conservation of Nature (IUCN) recognizes the monarch butterfly migration as an Endangered Phenomenon (CEC 2008).

Other Wildlife. A petition for review of the Project's Hazardous Waste Facility Permit (Truman and Elliott LLP 2013) addressed two additional species: scissor-tail flycatcher and kangaroo rat (no species indicated). Scissor-tail flycatcher (*Tyrannus forficatus*) has been observed in SFDRA (eBird 2014), but is not a listed or special-status species (CDFW 2011). There is no habitat on the Project site for this species and, while it may fly over the site, it is not likely to be found there.

No listed or special-status kangaroo rat species have been reported in the Project study area (USACE2013, CNDDB 2014). The Pacific kangaroo rat (*Dipodomys agilis*) has been reported from SFDRA (Strong 2004), but it is not a listed or special-status species (CDFW 2011). Kangaroo rats live in burrows they build in native shrublands, but cannot burrow in pavement. There is no habitat on the Project site for any kangaroo rat species and none are likely to be found there.

Wildlife Movement

Connectivity between habitat areas is important to long-term maintenance of plant and wildlife populations. The SFDRA and the San Gabriel River provide habitat connectivity with the San Gabriel Mountains to the north, but the Project site is not located within any wildlife movement corridor or habitat linkage.

Jurisdictional Waters and Wetlands

There are no potential jurisdictional waters or wetlands on the Project site, and therefore a formal jurisdictional delineation was not conducted. Jurisdictional resources present or potentially present within the Project study area include the San Gabriel River, tributaries, and drainages.

3.3.2 Regulatory Framework

The following are federal, State, and local laws, ordinances, regulations, and standards that apply to biological resources and jurisdictional waters and wetlands.

Federal Regulations

Endangered Species Act of 1973. The Endangered Species Act (ESA) (16 USC 1531 et seq.) and subsequent amendments establish legal requirements for the conservation of endangered and threatened species and the ecosystems upon which they depend.

Section 9. Section 9 of the ESA lists those actions that are prohibited under the ESA, including take (i.e., to harass, harm, pursue, hunt, wound, or kill) of listed species without special exemption. “Harm” is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or shelter. “Harass” is further defined as actions that create the likelihood of injury to listed species to an extent as to significantly disrupt normal behavior patterns which include breeding, feeding, and shelter.

Section 10. Section 10 allows for the "incidental take" of endangered and threatened species by non-Federal entities. Incidental take is defined by the ESA as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." Section 10 requires an applicant for an incidental take permit to submit a habitat conservation plan that specifies, among other things, the impacts that are likely to result from the taking and the measures the applicant will undertake to minimize and mitigate such impacts.

Critical Habitat. Critical habitat is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. Designation of an area as critical habitat provides a means by which the habitat of an endangered or threatened species can be protected from adverse changes or destruction resulting from federal activities or projects. A critical habitat designation does not set up a preserve or refuge and usually applies only when federal funding, permits, or projects are involved. Critical habitat requirements do not apply to citizens engaged in activities on private land that do not involve a federal agency.

Clean Water Act. The Clean Water Act (33 USC 1251 et seq.) establishes legal requirements for the restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters.

Section 401. Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the United States must obtain a State certification that the discharge complies with other provisions of the Clean Water Act. The Regional Water Quality Control Boards administer the certification program in California.

Section 404. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) regulating the discharge of dredged or fill material into waters of the United States, including wetlands. Implementing regulations by the USACE are found at 33 CFR Parts 320-330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines and were developed by the EPA in conjunction with the USACE (40 CFR Parts 230). The Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Migratory Bird Treaty Act. The Migratory Bird Treaty Act (MBTA) (16 USC 703-711) is a treaty signed by the United States, Canada, Mexico, and Japan that prohibits take of any migratory bird, including eggs or active nests, except as permitted by regulation (e.g., hunting waterfowl or upland game species). Under the MBTA, "migratory bird" is broadly defined as "any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle" and thus applies to most native bird species.

Bald and Golden Eagle Protection Act. The Bald and Golden Eagle Protection Act of 1940 (BGEPA) (16 USC, 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this act. Under BGEPA, take includes "disturb," which means "to agitate or bother a bald eagle or a golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Noxious Weed Act of 1974, as amended. This act provides for the control and management of nonindigenous weeds that injure or have the potential to injure the interests of agriculture and commerce, wildlife resources, or the public health. Under this act, the Secretary of Agriculture was given the authority to designate plants as noxious weeds, and inspect, seize and destroy products, and to quarantine areas, if necessary, to prevent the spread of such weeds.

Lacey Act, as amended (16 USC 3371-3378). This act protects plants and wildlife by creating civil and criminal penalties for a wide variety of violations including illegal take, possession, transport, or sale of protected species.

State Laws and Regulations

California Endangered Species Act. The California Endangered Species Act (CESA) (Fish and Game Code 2050 *et seq.)* establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that affect a species listed under both CESA and the federal ESA, compliance with the federal ESA will satisfy CESA if CDFW determines that the federal incidental take authorization is consistent with CESA under Fish and Game Code Section 2080.1. For projects that will result in take of a species listed under CESA but not under the federal ESA, the applicant must apply for a take permit under Section 2081(b).

Fully Protected Designations – California Fish and Game Code Sections 3511, 4700, 5515, and 5050. Prior to enactment of CESA and the federal ESA, California enacted laws to "fully protect" designated wildlife species from take, including hunting, harvesting, and other activities. Unlike the subsequent CESA and ESA, there was no provision for authorized take of designated fully protected species. Currently, 36 fish and wildlife species are designated as fully protected in California, including golden eagle.

California Senate Bill 618 (signed by Governor Brown in October 2011) authorizes take of fully protected species, where pursuant, to a Natural Conservation Community Plan, approved by CDFW. The legislation gives fully protected species the same level of protection as is provided under the Natural Community Conservation Planning Act for endangered and threatened species (see below).

Native Birds – California Fish and Game Code Sections 3503 and 3513. California Fish and Game Code Section 3503 prohibits take, possession, or needless destruction of bird nests or eggs except as otherwise provided by the Code; Section 3503.5 prohibits take or possession of birds of prey or their eggs except as otherwise provided by the Code; and Section 3513 provides for the adoption of the MBTA's provisions (above). With the exception of a few non-native birds such as European starling, the take of any birds or loss of active bird nests or young is regulated by these statutes. Most of these species have no other special conservation status as defined above. The administering agency for these sections is the CDFW. As with the MBTA, these statutes offer no statutory or regulatory mechanism for obtaining an incidental take permit for the loss of non-game migratory birds.

Natural Community Conservation Planning Act – Fish and Game Code Section 2800-2835. The Natural Community Conservation Planning (NCCP) Act of 1991 (amended in 2002) was established to provide a regional approach to conservation for multiple species, in contrast to the single-species approach implemented under CESA and the federal ESA. The NCCP Program is implemented by CDFW as a cooperative effort by the State of California and private and public partners, designed to protect species and their habitats through an ecosystem approach. The program helps identify and provide for large, area-wide protection of plants, animals, and their habitats while allowing for compatible and appropriate economic activity.

The NCCP Act promotes conservation of unfragmented habitat areas, promotes multi-species and multi-habitat management and conservation, and promotes the conservation of broad-based natural communities and species diversity. It provides an option for identifying mitigation that is proportional to a project's impacts to biological resources. Participation in the NCCP program is a voluntary mechanism that can provide an early planning framework for proposed development projects.

Streambed Alteration Agreements – California Fish and Game Code Sections 1600-1616. Under these sections of the Fish and Game Code, an applicant is required to notify CDFW prior to constructing a project that would divert, obstruct, or change the natural flow, bed, channel, or bank of a river, stream, or lake. Preliminary notification and project review generally occur during the environmental review process. When a fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project. CDFW jurisdiction is determined to occur within the water body of any natural river, stream, or lake. The term "stream," which includes creeks and rivers, is defined in Title 14, CCR, Section 1.72.

Regional and Local Regulations

Los Angeles County

Hillside Management and Significant Ecological Areas Ordinance. This ordinance regulates development within SEAs to preserve biological resources and sustainability. The SEA designation is given to land that supports irreplaceable biological resources, and SEAs are mapped as a zoning overlay in the Los Angeles County General Plan.

Los Angeles County Oak Ordinance. This ordinance requires permitting and mitigation for the removal of oak trees.

City of Irwindale General Plan Policies

Resource Management Element Policy 4. The City of Irwindale will continue to protect the use of the area's resources through appropriate land use controls and planning.

Resource Management Element Policy 9. The City will continue to cooperate with the other agencies that are charged with improving air and water quality in the region.

Environmental Review. The City shall continue to evaluate the environmental impacts of new development and identify applicable mitigation measures prior to development approval, as required by the California Environmental Quality Act (CEQA). Environmental review shall be provided for those projects that will have a potential to adversely affect the environment. Issue areas that will be addressed in the environmental analysis related to resource issues include: air quality, water and hydrology, plant life, animal life, natural resources, energy, aesthetics, recreation, and cultural resources. In compliance with CEQA, the City shall also assign responsibilities for the verification of the implementation of any mitigation measures.

City of Azusa General Plan Policies

Policy 1.3. Strive for the long-term maintenance of all native wildlife species living in the City and the Sphere of Influence including common and sensitive species.

Policy 4.1. Develop Thresholds of Significance that apply specifically to the City's resources in the analysis of a proposed project's impacts and mitigation measures, including loss of common plants and animals, loss of open space, and a net loss of habitat. Use a broader interpretation of the California Environmental Quality Act (CEQA) biota criterion thresholds to include unlisted species, species and habitats not considered sensitive, and urban nature.

Policy 5.1. Attract visitors, acquire property, and improve the local foothills and river areas because of their inherent environmental, ecological, and/or aesthetic contributions to the community and the region.

Policy 8.12. Protect the canyons, foothills, and river as open space and environmental resources.

Policy 10.6. Work with public and private organizations and individuals to minimize the land use impacts in and around the river, the canyons, and foothills, such impacts may include but not be limited to noise generation, natural resources encroachment, air quality degradation, aesthetic degradation, etc.

Policy 10.7. Control the development of industrial and other uses that use, store, produce, or transport toxins, generate unacceptable levels of noise, air emissions, or contribute other pollutants requiring adequate mitigation measures confirmed by environmental review and monitoring.

3.3.3 Project Impacts and Mitigation

This section evaluates the potential direct, indirect, permanent, and temporary impacts to biological resources from construction and operation of the Project and provides mitigation, as necessary, to reduce impacts to less than significant levels. Please see Section 4 for discussion of Cumulative Impacts and Section 5 for discussion of impacts of Project Alternatives.

Method and Thresholds for Determining Significance

A significant impact is defined under CEQA as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (Cal Code Regs. tit. 14, [hereinafter CEQA Guidelines] section 15382). In this analysis, the following impacts to biological resources are considered significant if the Project would result in:

BIO-1: A substantial adverse effect to wildlife species that are federally listed or state listed or proposed to be listed; a substantial adverse effect to wildlife species of special concern to CDFW, candidates for state listing, or animals fully protected in California.

BIO-2: A substantial adverse effects to plant species considered by CDFW, USFWS, or CNPS to be rare, threatened, or endangered in California or with strict habitat requirements and narrow distributions; a substantial impact to a sensitive natural community (i.e., a community that is especially diverse; regionally uncommon; or of special concern to local, state, and federal agencies).

BIO-3: Substantial adverse effects on habitats that serve as breeding, foraging, nesting, or migrating grounds and are limited in availability or that serve as core habitats for regional plant and wildlife populations.

BIO-4: 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.

BIO-5: Substantial adverse effect on important riparian habitats or wetlands and any other federal or state jurisdictional waters.

BIO-6: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

BIO-7: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Direct and Indirect Impacts and Mitigation. CEQA Guidelines define direct impacts as those impacts that result from the project and occur at the same time and place. Indirect impacts are caused by the project, but can occur later in time or farther removed in distance and are still reasonably foreseeable and related to the operation of the project. Direct or indirect impacts on biological resources could be permanent or temporary in nature. All impacts that result in the irreversible removal of biological resources are considered permanent. Any impact considered to have reversible effects on biological resources can be viewed as temporary.

Please note that the impact statements provided below do not strictly follow the CEQA checklist items shown above, as they have been adjusted based on experience regarding how the affected resource agencies prefer biological impacts to be discussed. In some circumstances there is more than one impact statement to cover a single CEQA checklist item and in other circumstances a single impact statement covers multiple CEQA checklist items.

Vegetation

Impact BIO-1: Temporary and permanent losses of native vegetation.

The Project site is developed as industrial with ornamental landscaping. Native vegetation, including riparian habitat, regionally unique habitat, or habitat capable of supporting special-status species, is not present within the Project site and would not be affected by the proposed Project. Construction and operation would take place within the existing industrial building and paved parking lot. The existing landscaped areas and ornamental vegetation also would not be affected. Therefore, no impacts to native vegetation would occur during Project construction or operation, and no mitigation is proposed (Class IV).

Impact BIO-2: Impacts on sensitive natural communities.

Sensitive natural communities are not present on the Project site and would not be affected by the proposed Project. Therefore, no impacts to sensitive natural communities would occur during Project construction or operation, and no mitigation is proposed (Class IV).

Impact BIO-3: Introduction and spread of invasive weeds into native habitat.

The spread of invasive plants destroys wildlife habitat and forage, threatens endangered species and native plants, and increases soil erosion and groundwater loss. The SFDRA supports native plants and wildlife that could be impacted by the introduction and spread of invasive weeds.

Construction and operation of the Project would take place within the existing industrial building and paved parking lot. The existing landscaped areas and ornamental vegetation would not be affected. No substantial invasive weed populations exist on the Project site. Therefore, no impacts to native vegetation from the introduction or spread of invasive weeds would occur during Project construction or operation, and no mitigation is proposed (Class IV).

Impact BIO-4: Air quality effects on native plants and habitat.

Nitrogen deposition is the input of nitrogen oxide (NOx) and ammonia (NH_3) derived pollutants, primarily nitric acid (HNO_3), from the atmosphere to the biosphere. Nitrogen deposition sources are primarily industrial and vehicle emissions. Mechanisms by which nitrogen deposition can lead to impacts on sensitive species include direct toxicity, changes in species composition among native plants, and enhancement of invasive species.

A detailed analysis of potential air quality impacts is provided in Air Quality (Section 3.1). Regional and localized air quality impacts, based on the South Coast Air Quality Management District's (SCAQMD) emissions significance thresholds, were determined to be less than significant. The SCAQMD thresholds were, in part, developed based on the potential for Project-level emissions to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards. The federal ambient air quality standards include primary and secondary standards. Primary standards set limits to protect public health, including the health of at-risk populations such as children, older adults, or people with pre-existing conditions that are affected by air pollution (such as asthmatics). Secondary standards, which are the same as or less stringent than the primary standards, set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. The SCAQMD significance thresholds are meant to address the most stringent of the primary standards, and by doing so also address the less stringent secondary standards. Therefore, given the surrounding industrial development and existing air quality, air quality impacts to native vegetation would be potentially adverse, but less than significant, and no mitigation is proposed (Class III).

Special-status Plants

Impact BIO-5: Temporary and permanent losses of special-status plants.

The Project site is a developed industrial area with no natural habitat. Conditions on the Project site are not suitable for any special-status plants, and none have been observed there. Therefore, no significant impacts to special-status plants would occur during Project construction or operation, and no mitigation is proposed.

As discussed above under BIO-3, no significant impacts to native vegetation, including special-status plants, from the introduction or spread of invasive weeds would occur during Project construction or operation, and no mitigation is proposed.

As discussed above under BIO-4, air quality impacts to native vegetation, including special-status plants, would be potentially adverse, but less than significant, and no mitigation is proposed (Class III).

Common Wildlife

Impact BIO-6: Direct loss of wildlife.

Direct loss of common small mammals, reptiles, and other less mobile species could occur during construction and operation of the Project. This would result primarily from the use of vehicles and equipment at the Project site, which could drive over animals.

The Project site provides limited, marginal habitat for common wildlife species and the direct impacts are expected to be less than significant. Therefore, no significant impacts to common wildlife would occur during Project construction or operation, and no mitigation is proposed.

As discussed under BIO-16 and BIO-17, below, no significant impacts to biological resources, including wildlife, from sediment and waste material runoff would result from Project construction or operation, and no mitigation is proposed (Class III).

Impact BIO-7: Disruption of breeding and foraging behaviors of wildlife.

Construction and operation activities and increased human presence may disrupt breeding or foraging activities of some common wildlife species at the Project site.

The Project site provides limited, marginal habitat for common wildlife species and the direct impacts are expected to be less than significant. Therefore, no significant impacts to breeding and foraging behavior of common wildlife would occur during Project construction or operation, and no mitigation is proposed (Class III).

Impact BIO-8: Noise effects on wildlife.

Noise from construction and operation activities could discourage wildlife from foraging and nesting near the Project site. Excessive noise masks auditory cues from other birds, including potential mates, and approaching predators. Many bird species rely on vocalizations during the breeding season to attract a mate within their territory, and noise from construction and operation could adversely affect nesting behavior and other activities.

The Project site is surrounded by existing industrial properties and is approximately 350 feet from the nearest native habitat. Industrial and urban development and roadways in the area are existing sources of noise to which local species have acclimated. A detailed analysis of potential noise impacts is provided in Noise (Section 3.7). Given the surrounding industrial development, existing ambient noise, and distance to native vegetation, noise impacts to native wildlife would be potentially adverse, but less than significant, and no mitigation is proposed (Class III).

Impact BIO-9: Lighting effects on wildlife.

Bright lighting at night could disturb the nesting, foraging, or mating activities of wildlife in the SFDRA and make wildlife more visible to predators. Night lighting could also be disorienting to migratory birds.

The Project site is surrounded by existing industrial properties and is approximately 350 feet from the nearest native habitat. Industrial and urban development and roadways in the area are existing sources of noise to which local species have acclimated. The proposed Project does not include any changes to the existing facility lighting. Therefore, the daytime or nighttime lighting used during construction and operation of the proposed Project would be consistent with current practice and consistent with the lighting in the surrounding industrial area.

An analysis of potential lighting impacts is provided in Aesthetics (Section 2.9.1). Given the surrounding industrial development, existing lighting, and distance to native vegetation, lighting impacts to native wildlife would be potentially adverse, but less than significant, and no mitigation is proposed (Class III).

Nesting Birds

Impact BIO-10: Impacts to nesting birds.

The Project site provides marginally suitable nesting habitat for a variety of common bird species. Birds could nest in the ornamental plantings or on the existing structure at the Project site. No special-status bird species are expected to nest on the Project site (see Table 3.3-3).

Adult birds typically flee from disturbance. However, eggs and nestlings are more vulnerable. Nests, nestlings, and eggs of native birds are also protected by the MBTA and Fish and Game Code Sections 3503 and 3513.

The facility at the Project site is in current operation, with resulting noise and activity, and is located in an industrial area. The landscaped areas are adjacent to Martin Road, which experiences a large amount of truck traffic. Construction and demolition would take place within the existing industrial building and paved parking lot. The existing landscaped areas and ornamental vegetation would not be affected. Birds that might nest on the Project site are likely to be tolerant of high levels of noise and activity. Project construction and operation are not expected to result in take of bird nests, eggs, or nestlings. Therefore, no significant impacts to nesting birds would result from Project construction or operation, and no mitigation is proposed (Class III).

As discussed above under BIO-8 and BIO-9, noise and lighting impacts to native wildlife, including nesting birds, would be potentially adverse, but less than significant, and no mitigation is proposed (Class III).

As discussed under BIO-16 and BIO-17, below, no significant impacts to biological resources, including nesting birds, from sediment and waste material runoff would result from Project construction or operation, and no mitigation is proposed (Class III).

Special-status Wildlife

Impact BIO-11: Direct loss of special-status wildlife.

There is no habitat for special-status wildlife species at the Project site, and none are expected to occur there. Therefore, no significant impacts to special-status wildlife would occur during Project construction or operation, and no mitigation is proposed.

As discussed under BIO-16 and BIO-17, below, no significant impacts to biological resources, including special-status wildlife, from sediment and waste material runoff would result from Project construction or operation, and no mitigation is proposed (Class III).

Impact BIO-12: Disruption of breeding and foraging behaviors of special-status wildlife.

Although special-status wildlife species are not expected to occur at the Project site, these species may forage, roost, or breed in the SFDRA. Indirect impacts could occur to special-status wildlife in the SFDRA during construction and operation. These include disturbance from noise and lighting, as well as degradation of habitat from invasive weeds, and runoff of sediment or toxic materials.

As discussed above under BIO-8 and BIO-9, noise and lighting, impacts to native wildlife, including special-status wildlife, would be potentially adverse, but less than significant, and no mitigation is proposed (Class III).

As discussed under BIO-16 and BIO-17, below, no significant impacts to biological resources, including special-status wildlife, from sediment and waste material runoff would result from Project construction or operation, and no mitigation is proposed (Class III).

Impact BIO-13: Impacts to migrating monarch butterflies.

Although not recorded on site, monarch butterflies could temporarily roost in ornamental trees on the Project site during migration. There is a low probability of this occurring and the Project will not affect the ornamental trees. Therefore, impacts to monarch butterflies would be less than significant and no mitigation is proposed (Class III).

Wildlife Movement

Impact BIO-14: Impacts to wildlife movement corridors.

The Project site is located in a developed industrial area and is not within a wildlife movement area. Therefore, no impacts to wildlife movement would result from Project construction or operation, and no mitigation is proposed (Class IV).

Jurisdictional Wetlands and Waters

Impact BIO-15: Impacts to jurisdictional wetlands and waters.

The Project would not result in direct loss or fill of any jurisdictional wetlands or waters, as there are none present within the Project site (Class IV).

As discussed under BIO-16 and BIO-17, below, no significant impacts to aquatic resources from sediment and waste material runoff would result from Project construction or operation, and no mitigation is proposed (Class III).

Impact BIO-16: Impacts of sediment in stormwater runoff on aquatic and biological resources.

There are no streams, drainages, wetlands, or other aquatic resources on the Project site. However, aquatic and biological resources including special-status plants and animals and jurisdictional wetlands and waters, in the SFDRA could be indirectly impacted from stormwater runoff during construction and operation if appropriate measures are not taken to prevent sediment from leaving the Project site.

Construction and operation of the Project would take place within the existing industrial building and paved parking lot. The existing landscaped areas and ornamental vegetation would not be affected. The potential for unmitigated sediment runoff during construction would be limited to a few days when the ramp improvement construction occurs outside of the building, and that potential would be mitigated through the implementation of the Storm Water Pollution Prevention Plan's (SWPPP) Best Management Practices (BMPs), please see Section 3.6 for additional discussion of the SWPPP BMPs. The Project would not disturb the soil surface inside or outside the existing building during operation, so no sediment runoff during operation is anticipated. Therefore, no significant impacts to aquatic and biological resources from sediment runoff would result from Project construction or operation, and no mitigation is proposed (Class III).

Impact BIO-17: Impacts of waste materials in stormwater runoff on aquatic and biological resources.

There are no streams, drainages, wetlands, or other aquatic resources on the Project site. However, aquatic and biological resources including special-status plants and animals and jurisdictional wetlands and waters, in the SFDRA could be indirectly impacted from stormwater runoff during construction and operation if appropriate measures are not taken to prevent waste materials from leaving the Project

site. Toxic materials washed from the site into the SFDRA could injure or kill wildlife and vegetation, and degrade habitat.

Measures will be in place to ensure proper handling of waste materials and to prevent and control spills and releases. Please refer to Hazards and Hazardous Materials (Section 3.5) and Hydrology and Water Quality (Section 3.6) for a detailed analysis of waste handling safety and the stormwater impacts, respectively. With implementation of the Project, design measures and mitigation measures described in Hazards and Hazardous Materials (Section 3.5) and Transportation (Section 3.8), there is no potential for toxic materials to be washed from the site, or washed from trucking accidents into the SFDRA; therefore, the stormwater runoff impacts to aquatic and biological resources would be less than significant, and no mitigation is proposed (Class III).

Policies, Ordinances, and Habitat Conservation Plans

Impact BIO-18: Conflicts with local policies or ordinances protecting biological resources.

Local policies and ordinances protecting biological resources are listed in Section 3.3.2. The Project would not remove any trees, and would not result in significant impacts to biological resources on the Project site. Therefore, the Project would not conflict with any local policies or ordinances protecting biological resources (Class IV).

Impact BIO-19: Conflict with the provisions of an adopted Habitat Conservation Plan.

As described in Section 3.3.1, the Project site is not within the boundaries of any adopted Habitat Conservation Plan, and would therefore not conflict with the provisions of an adopted Habitat Conservation Plan (Class IV).

3.4 Cultural and Paleontological Resources

Cultural Resources

Cultural resources are historic and prehistoric archaeological sites, historic architectural and engineering features and structures, and sites and resources of traditional cultural significance to Native Americans and other groups.

Paleontological Resources

Paleontological resources are fossils, the remains or traces of prehistoric life preserved in the geological (rock stratigraphic) record. They range from the well-known and well publicized (such as dinosaur and mammoth bones) to the more obscure but nevertheless scientifically important fossils (such as paleobotanical remains, trace fossils, and microfossils). Paleontological resources include the casts or impressions of ancient animals and plants, their trace remains (for example, burrows and trackways), microfossils (for example, fossil pollen, ostracodes, and diatoms), and unmineralized remains (for example, bones of Ice Age mammals or trunks of trees, such as those from the famous La Brea Tar Pits).

3.4.1 Existing Conditions

Cultural Resources

Background

This assessment considers three kinds of cultural resources, classified by their origins: prehistoric, ethnographic, and historic. Archaeological resources associated with the human occupation and use of California prior to prolonged European contact, are prehistoric archaeological resources. In California, the prehistoric period began over 12,000 years ago and extended through the eighteenth century until 1769, when the first Europeans settled in California. Ethnographic resources represent the heritage of a particular ethnic or cultural group, such as Native Americans or African, European, Latino, or Asian immigrants. Historic-period resources, both archaeological and architectural, are associated with Euro-American exploration and settlement of an area and the beginning of a written historical record. Resources of all three types have been identified in the San Gabriel Valley. The following prehistoric, ethnographic, and historical background provides the context for the evaluation of the California Register of Historic Resources (CRHR) eligibility of any identified cultural resources within the project area.

Prehistory

In the project area, the prehistoric period is separated into the Early Holocene (9600 cal B.C.to 5600 cal B.C.), the Middle Holocene (5600 cal B.C. to 1650 cal B.C.), and the Late Holocene (1650 cal B.C. to A.D. 1769). During the Early Holocene in interior Southern California, groups exploited lacustrine resources until the pluvial lakes and wetlands began to desiccate, when groups migrated to the coast to exploit maritime resources. Sometimes referred to as the Millingstone Period, the Middle Holocene was a time of transition, likely due to environmental stressors, and is primarily characterized by an adaptation focused on collecting and processing small plant seeds and hunting small- to medium-sized animals. The Late Holocene is characterized by the appearance of the bow-and-arrow, ceramics, changes in mortuary practices (i.e., cremations replacing inhumations), and increases in trade (Byrd and Raab 2007:215-227). No prehistoric sites were identified in the project area.

Ethnography

The project area was formerly occupied by the Gabrielino people. Generally, Gabrielino territory included the Los Angeles, San Gabriel, and Santa Ana watersheds, including the entire Los Angeles basin. There is very little knowledge of Gabrielino lifeways because most of them died before ethnographic surveys were conducted. Before these Native Americans were forced into the San Gabriel (the etymology of their name) and San Fernando Missions when the Spanish colonized Alta California in the late 18th century, they lived along the dominant rivers of the Los Angeles basin. They spoke a language derived from the Uto-Aztecan linguistic stock (Bean and Smith 1978:538-549). Today, decedents of this group are a part of a California State-recognized tribe, the Gabrielino-Tongva Tribe (historically known as the San Gabriel Band of Mission Indians). They do not currently have a reservation. The Santa Fe Dam Nature Center at the Santa Fe Dam and Recreation Area, about a mile west of the project area, maintains a cultural program, and offers a weekly special program on Kizh (Gabrielino) culture. No ethnographic resources were identified in the project area.

History

Brief visits by Spanish explorers in 1542 and 1602 to Gabrielino territory provided opportunities for trade between the two groups, but the Spanish did not maintain a permanent presence in the area until 1769. In 1771, the Mission San Gabriel *Arcangel*, located about 10 miles to the southwest of the project area, was the fourth Spanish mission founded in California.

Mexico declared its independence from Spain in 1821, and the influence of the missions declined with their secularization in 1834. Mexico issued vast land grants during this period, and the project area was located within the *Rancho Azusa de Dalton* (Cornejo 2007). The Santa Fe Railroad was built in 1888 and came through north of the project area, about 0.5 miles north of the project area (USGS 2006). California later became a state in 1850, and the San Gabriel Valley experienced steady population and economic growth until the turn of the 20th century.

Historic plats, topographic maps, and aerial photographs indicate that the project area remained undeveloped until about 1956. Prior to 1976 a road and several structures were constructed to the east and northeast of the project area. Table 3.4-1 indicates those plats and maps which were examined and the description of what the map displayed.

TABLE 3.4-1. HISTORIC PLATS AND TOPOGRAPHIC MAPS

Date	Scale	Quadrangle/Township & Range	Map Description
1865	1:24,000	Township 1 South, Range 10 West	The project area appears to be located within the Rancho Azusa (Henry Dalton) and in proximity to the 'bed of the San Gabriel or Azusa River." The 'Road to San Bernardino' lies over 1 mile to the south of the project area
1869	1:24,000	Township 1 South, Range 10 West	Appears similar to 1865 map
1877	1:24,000	Township 1 South, Range 10 West	Appears similar to 1869 map, with an unnamed road located about 1 mile to the southeast of the project area
1901	1:250,000	Southern CA Sheet 1	The area surrounding the project area appears undeveloped. The Santa Fe Railroad lies about 0.5 miles to the north of the project area

TABLE 3.4-1. HISTORIC PLATS AND TOPOGRAPHIC MAPS

Date	Scale	Quadrangle/Township & Range	Map Description
1904	1:62,500	Pomona	The area surrounding the project area appears undeveloped. The Santa Fe Railroad lies about 0.5 miles to the north of the project area
1939	1:24,000	Azusa	The area surrounding the project area appears undeveloped. The Santa Fe Railroad lies about 0.5 miles to the north of the project area.
1953	1:24,000	Baldwin Park	Appears similar to 1939 map
1966	1:24,000	Baldwin Park	The site does not appear developed, but several structures are located to the east and northeast of the project area
1972	1:24,000	Baldwin Park	Appears similar to 1966 map
1981	1:24,000	Baldwin Park	Appears similar to 1972 map

Sources: Hancock 1865; Thompson 1869; Norway 1877; USGS 1901; USGS 1904; USGS 1939; USGS 1953; USGS 1966; USGS 1972; USGS 1981

The aerial photographs provided in the Phase I Environmental Site Assessment prepared for the project site property in 2011 were also reviewed (DEC 2011). These aerial photographs were dated 1928, 1938, 1949, 1956, 1968, 1976, 1990, 1994/1995, and 2005. A review of these aerial photographs indicates that the site does not appear to have been significantly disturbed through 1956, while by 1968 the vegetation type and density appears to have changed and some surface scarring seems to be present, and by 1976 the site appears have been cleared. However, it is unclear if any permanent structures existed on the site at any time prior to the current site building being constructed in 1985.

Paleontological Resources

The Project site is located in the San Gabriel Valley of California, one of the principal valleys in Southern California. The San Gabriel Valley is a broad piedmont plain that slopes southwest from the base of the San Gabriel Mountains to Whittier Narrows, the lowest point of the valley. The Project area is directly underlain by Quaternary alluvial fan deposits (State of California 2007). These deposits date to the Late Pleistocene-Early Holocene Transition, and usually are overlaid with a veneer of Late Holocene deposits. Fossils have been recorded in this deposit, but the potential for encountering significant paleontological resources is considered to be low.

3.4.2 Regulatory Framework

Cultural Resources

Cultural resources reflect the history, diversity, and culture of the region and people who created them. They are unique in that they are often the only remaining evidence of the activity that occurred historically. Once destroyed, cultural resources cannot be made again, and they cannot provide any more information about past activities. Thus, there are several federal, State and local laws and guidelines that require the consideration of development effects on cultural resources.

The California Environmental Quality Act (CEQA) Statute and Guidelines include procedures for identifying, analyzing, and disclosing potential adverse impacts to historical resources, which include all resources listed in or formally determined eligible for the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), or local registers. CEQA further defines a "historical resource" as a resource that meets any of the following criteria:

- A resource listed in, or determined to be eligible for listing in, the NRHP or CRHR.
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- A resource identified as significant (e.g., rated 1-5) in a historical resource survey meeting the requirements of Public Resource Code Section 5024.1(g) (Department of Parks and Recreation [DPR] Form 523), unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the determination is supported by substantial evidence in light of the whole record. Generally, a resource is considered "historically significant" if it meets the criteria for listing on the CRHR (CEQA Guidelines Section 15064.5).

The CRHR is a listing of State of California resources that are significant within the context of California's history, and includes all resources listed in or formally determined eligible for the NRHP. The CRHR is a statewide program of similar scope to the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR. A historic resource must be significant at the local, state, or national level under one or more of the following criteria defined in the California Code of Regulations Title 14, Chapter 11.5, Section 4850:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The CRHR criteria are similar to NRHP criteria, and are tied to CEQA, as any resource that meets the above criteria is considered a historical resource under CEQA.

Paleontological Resources

Paleontological resources include fossil plants and animals, and other evidence of past life such as preserved animal tracks and burrows. Data provided by fossils also contribute to proper stratigraphic interpretations, paleoenvironmental and paleoclimatic reconstructions, and to understanding evolutionary processes. The importance of paleontological resources is therefore based on their scientific and educational value. The Society of Vertebrate Paleontology (SVP) identifies vertebrate fossils, their taphonomic and associated environmental data, and fossiliferous deposits as scientifically significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be significant.

Paleontological resources are afforded protection by environmental legislation set forth under CEQA. Appendix G (part V) of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources indicating that a project would have a significant impact on paleontological resources if it will disturb or destroy a unique paleontological resource, site, or unique geological feature.

Paleontological sensitivity is a qualitative evaluation by a professional paleontologist of geological units based on their potential to yield scientifically significant fossils. The paleontological sensitivity of a geologic unit is determined by background literature research, records review, and then a field survey. The analysis of paleontological sensitivity used for this assessment follows standard guidelines (SVP 2010 and BLM 1998) and uses the following four sensitivity categories:

- **High:** Areas underlain by geologic units that are likely to yield vertebrate fossils, plant megafossils, or scientifically important invertebrate fossils.
- **Moderate:** Areas underlain by geologic units that may yield scientifically significant fossils, but for which there are no direct records for fossil resources, and/or there are relatively few records.
- **Undetermined:** Areas underlain by geologic units for which little information regarding paleontological resources is available, although the nature of the unit (e.g., fine-grained sediments deposited in a low-energy setting) is conducive to fossil preservation.
- **Low:** Areas underlain by geologic units that are not known to yield fossils. This includes agricultural soils where disturbance would have compromised the stratigraphic integrity of any fossil material that survived mechanical damage, and weathered soil horizons where chemical leaching destroys fossil material.

3.4.3 Project Impacts and Mitigation

The cultural and paleontological resource impact analysis is based on answering the CEQA Checklist questions. Would the project:

- **CUL-1:** Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.
- **CUL-2:** Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- **CUL-3:** Disturb any human remains, including those interred outside of formal cemeteries.
- **PAL-1:** Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Cultural Resources Impact Analysis

Methods and Results

The Project area is defined as the area within a 0.25-mile radius of the proposed 0.98-acre project site, the CleanTech building and parking lot. The existing property features, building, and parking areas were constructed in 1984, and the engineering drawings for the site construction recommended excavation and use of fill for building construction (Eckert 1984). The amount of fill recommended (900 cubic yards) would equal a minimum average depth of fill of approximately 7 inches over the entire 0.98-acre property. The construction activities, with the exception of the excavation of two sumps would not require excavation 7 inches below the existing concrete depth, so only the sump excavation would have the potential to encounter native soils which could contain cultural resources.

A record search and archival research was conducted for this Project area and is attached as Appendix B (CHRIS 2014). No pedestrian archaeological survey was conducted in the Project area because there are no known historic resources in the Project area; there will be minimal ground-disturbance in an already disturbed area.

Record Search and Archival Research

A search for cultural resources conducted by research staff at the South Central Coastal Information Center at California State University Fullerton (SCCIC-CSUF) in March of 2014 indicated there are no cultural resources located in the proposed project area, and no cultural resources within 0.25 miles of the proposed project area. This record search also indicated that 3 cultural resource surveys were conducted in the proposed Project area.

TABLE 3.4-2. PRIOR CULTURAL RESOURCE STUDIES WITHIN A 0.25-MILE RADIUS

SCCIC Report No.	Author	Year	Study	Proximity to Project Area
LA-261	M. Rosen	1975	Evaluation of the Archaeological Resources and Potential Impacts of the Proposed Removal and Recreation Developments at the Santa Fe Dam and Basin, Los Angeles County	Outside
LA-3824	Greenwood and Associates	1995	Cultural Resources Report for the Baldwin Park Operable Unit Water Delivery Plan	Outside
LA-10532	D. Lands	1993	A Preliminary Cultural Resources Overview for the Proposed San Gabriel Valley Reclamation Program, Los Angeles County, California	Outside

Source: CHRIS 2014

There are no cultural resources located in the Project area such that they would be affected by the proposed activities of the Project. The closest cultural resource is more than 0.25 miles from the Project area. The proximity of the San Gabriel River, less than 0.5 miles west of the Project area historically, suggests a moderately high potential for archaeological sites in the region; however, in the Project area this potential is much diminished. This diminished potential is a result of previous ground disturbance and the shallow depth of the planned excavation activities. Moreover, all new construction will be conducted within an existing structure which is not historic in age, and thus there is no potential for indirect impacts to built-environment resources.

The activities associated with the proposed Project have very little potential to affect cultural resources. These activities include collecting used oil and treating it in tanks within an existing structure, including the installation of new tanks and processing equipment. This equipment installation will require the installation of a new reinforced concrete slab that will require an excavation of approximately 5 inches below the existing concrete floor of the structure, and two new bermed truck ramps will also be installed that will require a similarly shallow excavation. However, the two new truck loading area sumps will require an excavation depth of up to 5 feet (see Figure 2-3 in the Project Description section to see the proposed site layout). When the structure was initially constructed in 1985, it is believed to have been built on at least 7 inches of imported fill (Eckert 1984), so it appears that only the sumps excavation has the potential to encounter native soils. Due to a lack of known cultural resources in the proposed Project area, and the nature of the proposed Project activities, there was no requirement to conduct a pedestrian survey for cultural resources.

Native American Heritage Commission

The Native American Heritage Commission (NAHC) is the primary California governmental agency responsible for identifying and cataloging Native American cultural resources, providing protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction, and preventing irreparable damage to designated sacred sites and interference with the expression of Native American religion on State or private lands in California. It also provides a legal means by which Native American descendants can make known their concerns regarding the need for sensitive treatment and disposition of Native American burials, skeletal remains, and items associated with Native American burials.

The NAHC maintains two databases to assist cultural resources specialists in identifying cultural resources of concern to California Native Americans, also referred to as ethnographic resources. The NAHC's Sacred Lands database has records for places and objects that Native Americans consider sacred or otherwise important, such as cemeteries and gathering places for traditional foods and materials. The NAHC Contacts Database contains the names and contact information for individuals representing a group or themselves, who have expressed an interest in being contacted about development projects in a specified area.

The California Department of Toxic Substances Control submitted a request to the NAHC and received a response on November 8, 2011 (NAHC 2011) that there are no known Native American cultural resources identified in the proposed project area. The NAHC also responded with a list of nine Native American groups or individuals who may have an interest in the Project. Those tribal groups/individuals have been contacted and we have received the following specific written comment:

The proposed project is within the village area of our Tribal Nation known as " Asusangna " now known as Azusa which is a highly culturally sensitive area. So in order to protect our resources we're requesting one of our experienced & certified Native American monitors to be on site during all ground disturbances. (Salas 2014)

Impacts

Impact CUL-1: The project would cause a substantial adverse change in the significance of an historical resource as defined in §15064.5 [§15064.5 generally defines historical resource under CEQA].

The proposed activities associated with this project do not have the potential cause a substantial adverse change in the significance of any built-environment historical resources. The proposed project activities will be conducted within an enclosed building which is not historic in age, and thus there is no potential for impacts to built-environment resources and no mitigation is required (Class IV).

Impact CUL-2: The project would cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

The proposed activities associated with this project do not have the potential to cause a substantial adverse change in the significance of a known archaeological resource. However, it is possible, albeit highly unlikely, that previously undiscovered archaeological resources could be encountered during project implementation. If a previously undiscovered archaeological resource is encountered and it is eligible for listing in the CRHR, then any impacts to that resource would be potentially significant. Implementation of MM CUL-2.1 and MM CUL 2.2, requested by local Native American tribal contacts, would reduce potential impacts to previously undiscovered archaeological resource to a less than significant level and no additional mitigation would be required (Class II).

MM CUL-2.1: Management of Unanticipated Discoveries

In the unlikely event that previously unidentified cultural resources are uncovered during Project implementation, all work within 20 feet of the discovery will be halted and redirected to another location. The find will be secured, and a cultural resources specialist or designated representative will be contacted immediately. The specialist will inspect the discovery and determine whether further investigation is required. If additional impacts to the discovery can be avoided, the resource will be documented on California Department of Parks and Recreation (DPR) cultural resource records (Form DPR 523) and filed at the South Central Coastal Information Center at California State University, Fullerton (SCCIC-CSUF); no further effort will be required. If additional disturbance to the resource cannot be avoided, the specialist will evaluate the significance and California Register of Historic Resources eligibility of the resource and (if warranted) implement data recovery excavation or other appropriate treatment measures. The methods and results of evaluation or data recovery work at an archaeological find will be documented in a professional level technical report to be filed with the SCCIC-CSUF.

MM CUL-2.2: Monitoring for Native American Cultural Resources

In addition to the requirements of MM CUL 2.1, the Project Owner shall ensure that a Native American monitor be on site during excavation activities that may encounter native soils below the existing engineered fill layer at the Project site. The only excavation activity that would be deep enough to encounter native soils would be the excavation of the two new sumps. The Project Owner shall coordinate the Native American monitor through the Gabrieleno Band of Mission Indians. (www.gabrielenoindians.org)

Impact CUL-3: The project would disturb any human remains, including those interred outside of formal cemeteries.

The potential for encountering human remains within the project area is very low given the disturbed nature of the project area and the proposed project activities. In the event that human remains are encountered as a result of construction activities, implementation of MM CUL-3.1 would reduce the impact to a less than significant level, and no additional mitigation would be necessary (Class II).

MM CUL-3.1: Treatment of Human Remains

In the highly unlikely event that human remains or suspected human remains are uncovered during construction, all work within 20 feet of the discovery will be halted and redirected to another location. The find will be secured, and a cultural resources specialist or designated representative will be contacted immediately to inspect the find and determine whether the remains are human. If the remains are not human, the cultural resources specialist will determine whether the find is an archaeological deposit and whether Mitigation Measure CUL-3.1 applies. If the remains are human, the cultural resources specialist will immediately implement the provisions in Public Resources Code (PRC) Sections 5097.9 through 5097.996, beginning with the immediate notification to the Los Angeles County coroner. The coroner has two working days to examine human remains after being notified. If the Coroner determines that the remains are Native American, he or she must contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC, as required by the PRC Section 5097.98, determines and notifies the Most Likely Descendant (MLD).

Paleontological Resources

Methods and Results

Literature Review

The literature review included a detailed examination of geologic maps of the area. In addition, documents regarding the geology of the San Gabriel Valley and previous environmental documents were reviewed to gather existing paleontological resource data in the Project area. These documents included available published resources including books, journals, and maps, and information available via the internet on government websites (e.g., Conkling 2011, Aspen 2009).

The results of the literature review suggest that while Los Angeles County has a rich and diverse paleontological record, the Project area is an area of low paleontological sensitivity. Thus, there was no need to conduct a pedestrian survey for paleontological resources.

Results: Paleontological Sensitivity

The Project area is directly underlain by Quaternary alluvial fan deposits, which can date from the present to 2.6 million years ago. The results of reviews of paleontological and geological studies suggest this geologic unit has a very low potential for paleontological sensitivity in the Project area.

Impacts

Impact PAL-1: The project would directly or indirectly destroy a unique paleontological resource or unique geologic feature.

The geologic unit underlying the Project area does not have the potential to contain significant paleontological resources. Therefore, there would be no impacts and no mitigation is required (Class IV).

3.5 Hazards and Hazardous Materials

3.5.1 Existing Conditions

Project Setting

The proposed Project site is 0.98 acres in size and is located at 5820 Martin Road in the City of Irwindale near the signaled major cross streets of Irwindale Avenue and 1st Street. It is located approximately 0.5 miles south of the 210 Freeway and 1.4 miles east-southeast of the 605 Freeway (See Figure 2-1). The proposed Project site is also located within 0.25 miles of the Santa Fe Dam Recreation Area (SFDRA). No residences are located within 0.3 miles from the proposed Project site and the closest school is located over a mile away.

The proposed Project site is surrounded by other commercial/industrial properties. Beyond these other commercial/industrial properties further to the west and southwest from the proposed Project site is the SFDRA, which is operated by the County of Los Angeles Department of Parks and Recreation. The proposed Project site is located approximately 0.3 miles from the SFDRA Nature Center. The distance to the nearest residential areas is approximately one mile to the east and south of the facility and the nearest schools are located more than a mile from the proposed Project site (see Table 2-1 Receptor Locations Near the Proposed Project Site).

Existing Operations

The proposed Project site currently has two separate operating manufacturing processes, recycled oil clay filtering and used oil filter crushing, along with drum storage. Figure 2-2 shows the configuration of the proposed Project site as of January 2014. If the proposed Project is approved and permitted, these two processes could be removed from the proposed Project site and relocated to another site that is expected to be located no more than 2 miles away. However, one or both of these two existing processes may be retained at the Project site as the proposed Project is being built in phases; and depending on final project build-out and space limitations within the building, one or both of these processes may be relocated and retained after final project build-out within the Project site's building. Alternatively, based on business needs, one or both of these existing processes may be relocated within the Project site or removed from the Project site before the final decision is made on the proposed Project. These two processes, both of which have all required permits, do not require hazardous waste facility permits and do not treat hazardous wastes, although one of these two processes does produce used oil as a byproduct, which is a designated hazardous waste. The two current operating manufacturing processes are described below:

Recycled Oil Filtering. Certified non-hazardous oil is filtered to improve the grade of the oil. The operation includes centrifuging, ultra filtration, and media filtering of the oil. The upgraded oil is then stored and shipped to the Ports of Los Angeles/Long Beach areas for further processing and use. This entire operation is conducted within an epoxy coated concrete floor and includes a filtering media regeneration system that is comprised of a small thermal oxidizer and associated small cooling tower (Cleantech 2013/2014).

As of January 2014, the filtering operation was in a testing/commission phase. When fully installed and operating, it would be capable of processing 700 to 1000 gallons per hour of oil, and it would operate 2 to 3 shifts per day, 6 days per week. One person per shift is required to operate this process. As part of the installation of the recycled oil filtering process, several major improvements were made inside of the building on the proposed Project site, some of which would continue to be used as part of the proposed Project.

These improvements include the construction of a concrete diked area for four 20,000-gallon storage tanks (two of the tanks are currently installed), a truck loading area sump, and truck ramp improvements for the truck loading area that is adjacent to the storage tanks. The specifics of these improvements include:

- Installation of an epoxy coated Visqueen-lined 8-inch thick double crisscrossed steel rebar reinforced concrete floor in the diked tank area,
- Completion of 24-inch high dikes surrounding this tank area where existing building walls do not exist, and
- Installation of an epoxy coating on the concrete floor, the inner dike walls, and the existing building walls in the containment area to seal the concrete and prevent the migration of any spills where they otherwise may not be easy to discover.

Used Oil Filter Crushing Operation. Drained oil filters are crushed/compacted, and disposed as scrap metal. Additional used oil generated from the process is also collected and shipped for recycling. The entire crushing operation is contained within a welded steel diked area. Approximately 100 tons per month of scrap metal is generated and shipped to metal recyclers. Additionally, approximately 15,000 gallons of used oil is generated per month and shipped out as non-Resource Conservation Recovery Act (non-RCRA) Hazardous Waste, California Waste Code 221. This operation requires one operator per shift and 2 to 3 shifts are run per day, 6 days per week.

3.5.2 Regulatory Framework

Regulations applicable to the proposed Project are designed to regulate hazardous materials and hazardous wastes. These regulations also are designed to limit the risk of upset during the use, transport, handling, storage, and disposal of hazardous materials. The proposed Project would be subject to numerous federal, State, and local laws and regulations including, but not limited to, those described below.

Federal

The proposed Project would not accept federal hazardous wastes. It would be limited to the acceptance of California designated hazardous wastes. Therefore, many of the federal regulations related to hazardous waste or hazardous material collection, storage or treatment are not applicable to the proposed Project.

The Project would, through the used oil testing process, generate small quantities of hazardous waste that will require proper management in terms of manifesting and shipping. Additionally, CleanTech as a federal hazardous waste shipper does keep federal hazardous wastes at the site for limited, less than 10 day durations, as part of their hazardous waste transportation process; however, this existing transportation service operation is not part of the proposed Project. Specific federal regulations that do apply to the Project are listed below.

US Environmental Protection Agency (USEPA) - Clean Water Act (CWA)/Spill, Prevention, Control, and Countermeasure (SPCC) Rule. The CWA (33 U.S.C. Section 1251 et seq., formerly the Federal Water Pollution Control Act of 1972), was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the US. As part of the CWA, the USEPA oversees and enforces the Oil Pollution Prevention regulation contained in Title 40 of the CFR, Part 112 (Title 40 CFR, Part 112) which is often referred to as the “SPCC rule” because the regulations describe the requirements for facilities to prepare, amend and implement SPCC Plans. A facility is subject to SPCC regulations if a single oil storage tank has a capacity greater than 660 gallons, or the total above-ground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the “Navigable Waters” of the US.

Other federal regulations overseen by the USEPA relevant to hazardous materials and environmental contamination include Title 40, CFR, Chapter 1, Subchapter D – Water Programs, and Subchapter I – Solid Wastes. Title 40, CFR, Chapter 1, Subchapter D, Parts 116 and 117 designate hazardous substances under the Federal Water Pollution Control Act. Title 40, CFR, Part 116 sets forth a determination of the reportable quantity for each substance that is designated as hazardous. Title 40, CFR, Part 117 applies to quantities of designated substances equal to or greater than the reportable quantities that may be discharged into waters of the US.

Occupational Safety and Health Administration (OSHA). The OSHA's mission is to ensure the safety and health of America's workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. The OSHA staff establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. The OSHA standards are listed in Title 29 CFR Part 1910.

U.S. Department of Transportation (DOT). The DOT regulations administer the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act (HMTA). The provisions of the HMTA contain requirements for hazardous materials shipments and packaging and contain guidelines for: the marking, manifesting, labeling, packaging, placarding, and spill reporting. Specific regulations dealing with hazardous materials are covered under Title 49, CFR, Part 107.600 (Registration of Persons Who Offer to Transport Hazardous Materials), Title 49, CFR, Part 173.56 (Hazardous Material Regulations, Shippers – General Requirements for Shipping and Packaging), and Title 49, CFR, Part 397 (Transportation of Hazardous Materials; Driving and Parking Rules). The small quantity of generated used oil testing hazardous wastes will have to meet the manifesting and transportation requirements of these regulations.

State

Hazardous Materials Release Response Plans and Inventory Act of 1985. The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as unsafe, raw, or unused materials that are part of a process or manufacturing step. They are not considered hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). Senate Bill 1082, introduced by Senator Charles Calderon (D-Whittier) and passed in 1993, created the Unified Program, which requires the administrative consolidation of six (6) hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are:

- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (a.k.a., Tiered Permitting),
- Aboveground Petroleum Storage Tank SPCC Plan,
- Hazardous Materials Release Response Plans and Inventory Program (a.k.a. Hazardous Materials Disclosure or "Community-Right-To-Know"),
- California Accidental Release Prevention Program (Cal ARP) [Not applicable to the proposed Project],
- Underground Storage Tank (UST) Program [Not applicable to the proposed Project], and
- Uniform Fire Code Plans and Inventory Requirements.

The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental health or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Element in coordination with the CUPA.

California Environmental Protection Agency (Cal/EPA). The Cal/EPA was created in 1991, which unified California's environmental authority in a single cabinet-level agency and brought the Air Resources Board (ARB), State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCBs), Integrated Waste Management Board (IWMB), Department of Toxic Substances Control (DTSC), Office of Environmental Health Hazard Assessment (OEHHA), and Department of Pesticide Regulation (DPR) under one agency. These agencies were placed within the Cal/EPA "umbrella" for the protection of human health and the environment and to ensure the coordinated deployment of State resources. Their mission is to restore, protect, and enhance the environment, to ensure public health, environmental quality, and economic vitality.

DTSC is a department of Cal/EPA and is the primary agency in California that regulates hazardous waste, cleans-up existing contamination, and identifies ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Government Code §65962.5 (commonly referred to as the Cortese List), includes DTSC-listed hazardous waste facilities and sites, the DHS lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and that have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

Hazardous Waste Control Act (HWCA). The HWCA created the State hazardous waste management program, which is similar to, but more stringent than, the federal RCRA program. The act is implemented by regulations contained in Title 26 of the CCR, which describes the following required aspects for the proper management of hazardous waste:

- Identification and classification;
- Generation and transportation;
- Design and permitting of recycling, treatment, storage, and disposal facilities;
- Treatment standards;
- Operation of facilities and staff training; and
- Closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the HWCA and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

OEHHA, Safe Drinking Water and Toxic Enforcement Act of 1986. In 1986, California voters approved an initiative to address their growing concerns about exposure to toxic chemicals. That initiative became the Safe Drinking Water and Toxic Enforcement Act of 1986, better known by its original name of Proposition 65.

Proposition 65 requires the State to publish a list of chemicals known to cause cancer or birth defects or other reproductive harm. This list, which must be updated at least once a year, has grown to include approximately 800 chemicals since it was first published in 1987.

Proposition 65 requires businesses to notify Californians about significant amounts of chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. By providing this information, Proposition 65 enables Californians to make informed decisions about protecting themselves from exposure to these chemicals. Proposition 65 also prohibits California businesses from knowingly discharging significant amounts of listed chemicals into sources of drinking water.

The OEHHA administers the Proposition 65 program. OEHHA, which is part of the Cal/EPA, also evaluates all currently available scientific information on substances considered for placement on the Proposition 65 list.

RWQCB. The RWQCB develops and enforces water quality objectives and implementation plans that protect beneficial uses of the State's waters. The proposed Project is located within the City of Irwindale, which is located within the jurisdiction of the Los Angeles RWQCB, the primary regulatory agency for stormwater discharges and for sites that impact or have the potential to impact the quality of surface or groundwater.

California Office of Emergency Services (OES). In order to protect the public health and safety and the environment, the California OES is responsible for establishing and managing statewide standards for business and area plans relating to the handling and release or threatened release of hazardous materials. Basic information on hazardous materials handled, used, stored, or disposed of (including location, type, quantity, and the health risks) needs to be available to firefighters, public safety officers, and regulatory agencies, and needs to be included in business plans in order to prevent or mitigate the damage to the health and safety of persons and the environment from the release or threatened release of these materials into the workplace and environment. These regulations are covered under Chapter 6.95 of the California Health and Safety Code Article 1–Hazardous Materials Release Response and Inventory Program (Sections 25500 to 25520) and Article 2–Hazardous Materials Management (Sections 25531 to 25543.3).

CCR Title 19, Public Safety, Division 2, Office of Emergency Services, Chapter 4–Hazardous Material Release Reporting, Inventory, And Response Plans, Article 4 (Minimum Standards for Business Plans) establishes minimum statewide standards for Hazardous Materials Business Plans (HMBPs). These plans shall include the following: (1) a hazardous material inventory in accordance with Sections 2729.2 to 2729.7; (2) emergency response plans and procedures in accordance with Section 2731; and (3) training program information in accordance with Section 2732. Business plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the State. Each business shall prepare an HMBP if that business uses, handles, or stores a hazardous material or an extremely hazardous material in quantities greater than or equal to the following:

- 500 pounds of a solid substance,
- 55 gallons of a liquid,
- 200 cubic feet of compressed gas,
- A hazardous compressed gas in any amount, and
- Hazardous waste in any quantity.

California Occupational Safety and Health Administration (Cal/OSHA). The Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. The Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

- Hazardous Substance Information and Training (8 CCR Section 339). Requires listing and implementation of specified control measures for management of hazardous substances.

California Highway Patrol (CHP). A valid Hazardous Materials Transportation License, issued by the CHP, is required by the laws and regulations of State of California Vehicle Code Section 3200.5 for transportation of either:

- Hazardous materials shipments for which the display of placards is required by State regulations; or
- Hazardous materials shipments of more than 500 pounds, which would require placards if shipping greater amounts in the same manner.

Additional requirements on the transportation of explosives, inhalation hazards, and radioactive materials are enforced by the CHP under the authority of the State Vehicle Code. Transportation of explosives generally requires consistency with additional rules and regulations for routing, safe stopping distances, and inspection stops (Title 14, CCR, Chapter 6, Article 1, Sections 1150-1152.10). Inhalation hazards face similar, more restrictive rules and regulations (Title 13, CCR, Chapter 6, Article 2.5, Sections 1157-1157.8). Radioactive materials are restricted to specific safe routes for transportation of such materials.

Local

County of Los Angeles, Certified Unified Program Agency (CUPA). There are six state programs that regulate business and industry's use, storage, handling and disposal of hazardous materials and hazardous wastes which were consolidated under Senate Bill 1082 in 1994 to be part of a single environmental control program managed by a CUPA at the city or county level. In Los Angeles County, El Segundo, Glendale, Long Beach/Signal Hill, City of Los Angeles, Santa Fe Springs, Santa Monica, Vernon, and the County have been certified by the state to be CUPA's for their areas of jurisdiction.

- The ***Los Angeles County Fire Department (LACFD)*** has entered into an agreement with the County of Los Angeles to perform the Hazardous Waste components of the Unified Program.
- The ***Los Angeles County Department of Public Works*** has been given jurisdictional authority over the regulation of USTs.

A description of this program is provided above under “Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program).”

County of Los Angeles Department of Public Health. The Los Angeles County Department of Public Health’s Solid Waste Management Program (acting as a Local Enforcement Agency [LEA]) for the CIWMB) enforces the standards for solid waste handling and disposal. The County of Los Angeles Department of Public Health also provides Solid Waste Facility Permits and Tire Hauler Permits.

City of Irwindale. The City of Irwindale (City) relies on the State and the County of Los Angeles local laws, ordinances, regulations, standards, and their enforcement agencies regarding solid waste material and environmental safety regulations. The City’s Public Safety Element of the General Plan Update (June 2008) identifies the City's policy relative to the reduction and mitigation of natural and man-made

hazards as a means to improve the safety of its citizens, employment base, and visitors. The Safety Element is concerned with identifying existing hazards and ways to reduce risk to people and property from the hazards on persons and of property. Many of the City's industries produce, use, and store hazardous materials; therefore, public safety issues involve not only the use of these materials in populated areas but also the transport and disposal of the substances. City policy relating to health risks and environmental safety include:

- ***Issue Area – Emergency Preparedness.*** The City of Irwindale will strive to maintain the highest levels of readiness to respond to disasters or local emergencies.
- ***Safety Element Policy 1.*** The City of Irwindale will continue to review and if necessary, update its comprehensive emergency preparedness plan and hazard mitigation plan.
- ***Safety Element Policy 2***. The City of Irwindale, at a minimum, will maintain current emergency response standards.

Further, the City implements several Public Safety Element Programs such as building code review and code enforcement, disaster response database, hazardous materials control, fire prevention, emergency preparedness plan, environmental review, safety development review program, police and fire services review, and hazard mitigation plan.

The City contracts with the County of Los Angeles, whose appropriate agencies review and approve permit submittals. The City of Irwindale would not issue the final permits until after the hazardous Waste Facility Permit is approved by DTSC.

3.5.3 Project Impacts and Mitigation

This section analyzes the impacts associated with implementation of the proposed Project related to the risk of upset due to potential hazardous substances, including hazardous materials and/or hazardous waste within the proposed Project area and the vicinity, as well as other hazards to public safety. The impact analysis describes the methods used to determine the proposed Project's impacts and lists the thresholds used to conclude the significance of an impact. Measures to mitigate (avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, as required.

Impact Assessment Methodology

The methodology for analyzing impacts related to hazards and hazardous materials include identifying general types of hazardous materials and techniques that are likely to be used during proposed Project construction, operation, and maintenance activities. In addition, federal, State, and local agency local laws, ordinances, regulations, and standards were analyzed to determine mandated mitigation measures required at the proposed Project site. The existing hazardous materials sites analyzed for the proposed Project are those located within 0.5 miles of the proposed Project boundary that have known environmental contamination, those that have underground storage tanks, or those that store, use, or dispose of hazardous materials with reported incidents of spills or violations. These are sites with the potential to have resulted in environmental contamination on the proposed Project site.

Thresholds of Significance

The significance of potential hazards and hazardous materials impacts were determined based on relevant State California Environmental Quality Act Guidelines, Appendix G. Using these thresholds, the proposed Project would be considered to have a significant impact related to hazards and hazardous materials impacts if it were to:

- **HAZ-1:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- **HAZ-2:** 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.
- **HAZ-3:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school.
- **HAZ-4:** 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.
- **HAZ-5:** 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 for people residing or working in the project area.
- **HAZ-6:** For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- **HAZ-7:** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- **HAZ-8:** Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Project Impacts

Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

During construction of the proposed Project, demolition of existing office structures consisting of the removal of interior office wallboard walls, false ceilings, and flooring materials would occur. Additionally, the demolition of two of the existing outdoor truck ramps and areas of the interior concrete floor within the building will occur. No demolition of the building's concrete walls will occur.. New construction would include the utilization of concrete, sand, asphalt, paint, epoxy coating, Visqueen, and steel rebar. Construction and demolition waste could also consist of non-contaminated materials, such as non-contaminated concrete, soil, wood, plastic sheathing, sheetrock, metals, and other materials. No significant hazardous materials are expected to be used or disposed of during construction. Therefore, the proposed Project is not expected to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction. Less than significant impacts would occur.

If the proposed Project is approved and permitted, CleanTech would collect used oil from off-site generators (gas stations, oil changers, auto repair shops, etc.) by truck and consolidate the used oil in stationary above-ground tanks that would be constructed within the existing building at the proposed Project site (see Figure 2-3). The used oil would be filtered and treated by blending, gravity separation, and by adding a chemical reagent if necessary, to remove entrained solids and enhance dehydration, to meet the recycled oil standards. CleanTech would then test and certify the treated used oil as "recycled oil" and ship the certified recycled oil for further treatment, or retain it on site for additional non-hazardous waste treatment. In addition to the used oil, CleanTech would also collect and bulk for transport waste, three other types of hazardous waste: waste antifreeze, non-RCRA wastewater, and oily solid waste. These other wastes will not undergo any treatment processes. No non-hazardous solid wastes will be collected, received, generated, or stored at the proposed Project site. The Process Description, Section 2, provides additional description of the various waste handling and treatment processes along with a process flow diagram (see Figure 2-5).

As described in Table 2-4 of Section 2 (Project Description), the following hazardous waste types would be stored, treated, and certified at the proposed Project site:

California Waste Code	Common Name of Received Waste Type
133	Non-RCRA Wastewater or Used Antifreeze (>10% total organic residue)
134	Non-RCRA Wastewater or Used Antifreeze (<10% total organic residue)
135	Non-RCRA Wastewater or Used Antifreeze (unspecified composition)
221	Used Oil
222	Oily Solid Waste or Non-RCRA Wastewater
223	Oily Solid Waste or Non-RCRA Wastewater
241	Oily Solid Waste or Non-RCRA Wastewater
343	Used Antifreeze (unspecified composition)
352	Oily Solid Waste
491	Oily Solid Waste or Non-RCRA Wastewater
512	Contaminated Drums (Empty Containers >30 gallons, contaminated by the other listed wastes)
513	Contaminated Drums (Empty Containers <30 gallons, contaminated by the other listed wastes)
612	Used Oil, Non-RCRA Wastewater, or Waste Antifreeze (from household waste collection)

Source: DTSC 2012, CleanTech 2014

Waste from on-site used oil testing would be collected and eventually placed in drums that would be stored in the Drum Storage Area, and then properly disposed of. Regulated drum storage is generally limited to 90 days. The following chemicals would be stored in small quantities on site and used for testing of the received used oil during the certification process:

- Sulfuric Acid: 2.5 liter capacity, quantity on hand 4-2.5 liter containers, CAS # 7664-93-9
- pH Buffer 4.01: capacity 4,000 ml, quantity on hand 2-4000 ml containers, CAS # - none
- pH Buffer 7.00: capacity 4,000 ml, quantity on hand 2-4000 ml containers, CAS # - none
- pH Buffer 10.0: capacity 4,000 ml, quantity on hand 2-4000 ml containers, CAS # - none
- Dexsil Chloro-D-Tect 1000 Chlorine/Halogen Test Kit. The test kit consists of one test tube containing two ampules, one test tube containing two ampules plus an aqueous solution, and a separate ampule. A list of contents within each ampule is listed below.

Component	Contents	CAS#	EC#	% liquid
Ampule 1 (gray color)	Sodium	7440-23-5	231-132-9	0.60%
	dispersed in oil	64742-46-7	265-148-2	2.38%
Ampule 2 (large, colorless)	Naphthalene in	91-20-3	202-049-5	1.06%
	Ethyl Diglyme Solution	112-36-7	203-963-7	10.74%
Ampule 3 (yellow-dot)	Mercuric Nitrate	10045-94-0	233-152-3	0.01%
	in water	7732-18-5	231-791-2	6.52%
Ampule 4 (red-green color)	Ethanol	64-17-5	200-578-6	3.40%
Ampule 5 (colorless)	Organo-Sulfur Compound	128-04-1	204-876-7	5.19%
Aqueous Solution	Sulfuric Acid	7664-93-9	231-639-5	2.04%
	in water	7732-18-5	231-791-2	68.06%
				100.00%

Source: Dexsil 2013

* Due to the use of mercury, the used ampules would be stored in a suitable container and disposed of as a separately listed hazardous waste.

As described in Section 2.3 (Project Components):

- ***Process Area 1*** would contain the drum storage and transfer area, drum, and material processing area, one 10-15 yard roll off bin and three 20,000 gallon storage/transfer processing tanks.
- ***Process Area 2*** would be located inside of the existing site building adjacent to and west of Process Area 1. This process area contains the general bulk processing area, and storage and spill containment tank area, including eleven 20,000 gallon storage tanks (fourteen total 20,000 gallon storage tanks would be located inside of the facility); and the permitted truck loading and unloading area.

Both Process Areas would be located within the existing building and would be operated in a concrete epoxy-coated and Visqueen-lined 8-inch-thick double criss-crossed steel rebar reinforced concreted floor containment area. All shipping and receiving areas would be located within the facility and would be operated and contained within a diked and/or bermed concrete, epoxy-coated containment area (please see Figure 2-4). All diked tank areas would be interconnected to increase the total available containment volume (over 120,000 gallons of containment volume). All bermed or diked areas are designed to contain, at a minimum, the largest container/tank and 30 minutes of fire sprinkler operation.

Operation of the proposed Project would result in a potentially significant hazard to the public or personnel if a hazardous material spill or leak were to occur at the proposed Project site. The epoxy coating in the containment area is applied on the concrete floor, the inner dike walls, and the existing building walls to seal the concrete and prevent the migration of any spills where they otherwise may not be easy to discover. Any potential leakage or spillage from the above ground tanks, piping, or from truck unloading or loading during facility operation or maintenance would be confined within the containment areas. The proposed tanks, ancillary equipment, piping, and secondary containment system would be visually inspected daily (each work day) to detect leaks or other problems with respect to tank, piping, and ancillary equipment integrity. Due to the constructed prevention measures in place, used oil, oil-related wastes, and used antifreeze should not run off the proposed Project site into the surrounding environment. Personnel at CleanTech are trained in emergency procedures to contain spills and to call for help if the situation were to get out of hand. If additional cleanup assistance is required, the following companies are two potential spill cleanup responder options that could be contacted:

- United Pumping Service Inc., 14000 East Valley Boulevard, City of Industry, CA 91746
  (626) 961-9326
- Veolia ES Special Services, 1250 East 23rd Street, Signal Hill, CA 90755
  (562)981-6363

CleanTech also has a Contingency Plan in place that outlines the emergency procedures that should be followed in the event of a release. Cleantech has submitted this Contingency Plan as part of its CUPA submittal to the Los Angeles County Fire Department, Hazardous Materials Division. The Contingency Plan covers the following:

- Designation of Emergency Coordinator,
- Emergency Response Procedures,
- Control Procedures,
- Provisions for Tank System Secondary Containment Repair or Closure,
- Emergency Equipment,
- Coordination Agreements with Local Agencies, and
- Evacuation Plan.

As discussed above in Section 3.5.1 (Existing Conditions), the proposed Project site currently has two separate operating manufacturing processes (Recycled Oil Filtering and Used Oil Filter Crushing Operation), along with empty drum storage, that are currently active at the facility. If the proposed Project is approved and permitted, those two processes may be removed from the proposed Project site and relocated to another site, currently not designated, that is expected to be located within 2 miles of the proposed Project site. However, one or both of these two existing processes may be retained at the proposed Project site as the proposed Project is being built in phases; and depending on final Project build-out and space limitations within the building, one or both of these processes may be relocated and retained after final Project build-out within the proposed Project site's building. Alternatively, based on business needs, one or both of these existing processes may be relocated within the proposed Project site or removed from the proposed Project site before the final decision is made on the proposed Project. These two processes, both of which have all required permits, do not require hazardous waste facility permits and do not treat hazardous wastes, although one of these two processes does produce used oil as a byproduct, which is a designated hazardous waste. Both of these processes are located within diked areas (see description in Section 3.5.1, Existing Conditions) and would be subject to the same Contingency Plan for the proposed Project planned activities. Therefore, operation of the proposed Project is not expected to result in a potentially significant hazard to the public or personnel if a hazardous material spill or leak were to occur at the proposed Project site.

Operation of the proposed Project could result in a potentially significant hazard to the public or personnel if a hazardous material spill or leak were to occur during transport of hazardous waste to the proposed Project site. Along the proposed traffic route of the proposed Project, an accidental spill or leak could occur which would require procedures for cleanup and removal of the hazardous material. The proposed Project would implement Mitigation Measure (MM) HAZ-1.1 to reduce impacts of a hazardous material spill or leak during transport of hazardous waste to the proposed Project site. If additional cleanup assistance is required, the spill cleanup response companies that could be contacted for cleanup assistance are listed above.

In addition, with the implementation of MM TR-1.1 (discussed in Section 3.8 Transportation), proposed Project traffic would be restricted to the following route: 210 Freeway exiting onto Irwindale Avenue, traveling south and turning right onto 1st Street, and then onto Martin Road. Restricting proposed Project traffic to a designated route that is not located near any residences, schools, or other sensitive receptors would help to localize any potential hazardous material spills or leaks away from residences and other sensitive receptors if those spills were to occur near the Project site during transport of hazardous waste. Therefore, with the implementation of MM HAZ-1.1 and MM TR-1.1, impacts would be less than significant.

As discussed in Section 2.9.4 (Geology and Soils), a seismic event could occur and cause damage to the facility. During a seismic event at the CleanTech facility, any hazardous material spill or leak would be confined to the containment areas described above. Personnel at CleanTech are trained in emergency procedures to contain spills and to call for help if the situation were to get out of hand. Additionally, a Contingency Plan would be in place that outlines the emergency procedures that should be followed in the event of a release. Likewise, a seismic event could occur while hazardous materials are being transferred to the proposed Project site, resulting in a hazardous materials spill or leak. With the implementation of MM HAZ-1.1, impacts from a hazardous materials spill or leak would be reduced. MM HAZ-1.1 would include: Inspection and operation training, safety training for emergency response, and procedures for reporting accidents involving a hazardous materials spill or leak. Therefore, impacts from a potential seismic event would be less than significant.

In summary, the proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction and operation. Containment measures, employee training, and the preparation of a Contingency Plan that includes contingency planning for hazardous material transport would ensure that potential hazards to the public or personnel from a hazardous material spill or leak at the proposed Project site are less than significant. With the implementation of MM HAZ-1.1 and MM TR-1.1, less than significant impacts would occur during the transportation of hazardous materials to the proposed Project site. Additionally, impacts resulting from a hazardous materials spill or leak during a seismic event would be less than significant (Class II).

Mitigation Measures

MM HAZ-1.1 Hazardous Materials Transportation Emergency Response Plan

The project proponent shall develop a Hazardous Materials Transportation Emergency Response Plan (HMTERP) and ensure that it is provided to employees who will operate a vehicle used to transport hazardous materials to and from the proposed Project site, or otherwise while transporting hazardous materials under employment of the project proponent. Employees should also be trained to provide awareness and familiarization with the requirements of the HMTERP. The HMTERP shall consist of the following:

- Inspection and Operation Training (e.g., Pre-Travel Inspection prior to operating the vehicle, the use of vehicle controls and equipment, operation of emergency equipment);
- Methods and procedures for avoiding accidents (e.g., hazardous materials spill), including proper handling procedures of containers or packages consisting of hazardous materials;
- Safety Training for emergency response (e.g., measures to protect the employee from hazards associated with hazardous materials; emergency contacts for clean-up and containment of hazardous materials, including maintaining placards or stickers with that information in each operating truck; and
- Procedures for reporting accidents involving a hazardous materials spill or leak.
- Procedures required for allowing site access to hazardous waste transporters that are not under the direct control of the project proponent (third-party transporters).

MM TR-1.1 Traffic Control Plan

See Section 3.8.3 for full text.

Impact HAZ-2: 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

A Phase 1 Environmental Site Assessment (ESA) was completed in November 2011 to identify potentially contaminated areas at the proposed Project site that may require further investigation or remediation (DEC 2011). The Phase 1 ESA concluded that no corrective action was needed at the proposed Project site at this time. DTSC reviewed and concurred with this conclusion. Therefore, construction activities would not release hazardous materials from excavation activities.

As discussed above in Impact HAZ-1, operation of the proposed Project would result in a potentially significant hazard to the public or personnel if a hazardous material spill or leak were to occur at the proposed Project site. The epoxy coating in the containment area is applied on the concrete floor, the inner dike walls, and the existing building walls to seal the concrete and prevent the migration of any spills where they otherwise may not be easy to discover.

Any potential leakage or spillage during operations and/or maintenance would be confined within the containment areas. The proposed tanks, ancillary equipment, piping, and secondary containment system would be visually inspected daily (each work day) to detect leaks or other problems with respect to tank, piping, and ancillary equipment integrity. Due to the constructed prevention measures in place, used oil, oil-related wastes, and used antifreeze will not run off the proposed Project site into the surrounding environment.

Personnel at CleanTech are trained in emergency procedures to contain spills and to call for help if the situation were to escalate. Companies that would likely be contacted for cleanup assistance are listed above under Impact HAZ-1. CleanTech also has a Contingency Plan (discussed above in Impact HAZ-1) in place that outlines the emergency procedures that should be followed in the event of a release.

A fire could occur at the proposed Project site. This becomes possible when the temperature reaches the used oil flash point. However, the proposed Project's hazardous materials either have a very high flash point (used oil, waste anti-freeze, oil contaminated solids) or are not flammable (oil-contaminated water). The flash point is defined as the lowest temperature at which a liquid gives off enough vapor to form an ignitable mixture with air and burn when a source of ignition (sparks, open flames, cigarettes, etc.) is present. Used oil has a flashpoint of approximately 400°F, which is fairly high. Therefore, the possibility of a fire starting without an external source is minimal. In addition to a fire sprinkler system that would extinguish fires upon initiation, fire extinguishers are present throughout the proposed Project site, and the LACFD would respond to a first alarm with appropriate equipment and personnel. Additionally, the LACFD will issue final approval on proposed Project operations when DTSC Hazardous Waste Facility Permit is approved and submitted as a revised permit modification. CleanTech does not store flammable liquids in buildings or under roofs except for small quantities of lab chemicals and samples, and a few propane tanks required for forklift operation. CleanTech personnel will be trained to correctly handle the hazardous waste during unloading/loading and transportation within the facility so the risk of fire should be low.

Operation of the proposed Project could result in a potentially significant hazard to the public or personnel if a hazardous material spill or leak were to occur during transport of hazardous waste to the proposed Project site. Companies that would likely be contacted for cleanup assistance are listed above under Impact HAZ-1. As discussed in Impact HAZ-1, the proposed Project would implement MM HAZ-1.1 and MM TR-1.1 to reduce impacts of a hazardous material spill or leak during transport of hazardous waste to the proposed Project site.

As discussed above in Impact HAZ-1, a seismic event could occur and cause a hazardous material spill or leak at the CleanTech facility or during transport of hazardous materials to the proposed Project site. Any hazardous materials spill or leak at the CleanTech facility would be confined to the containment areas described above. Impacts resulting in a hazardous materials spill or leak during transport would be reduced with the implementation of MM HAZ-1.1. Potential impacts from a seismic event would be less than significant.

Therefore, the proposed Project would not 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. Less-than-significant impacts would occur with the implementation of MM HAZ-1.1 and MM TR-1.1 (Class II).

Impact HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school

The nearest schools to the proposed Project site are Mountain View Elementary School, located at 201 North Vernon Avenue in Azusa, approximately 1.2 miles northeast of the proposed Project site, and Valleydale Elementary School, located at 700 South Lark Ellen Avenue in Azusa, approximately 1.5 miles southeast of the proposed Project site. Furthermore, any potential leakage or spillage during operations and/or maintenance would be confined within the containment areas of the proposed Project site. Due to the constructed prevention measures in place, used oil, oil-related wastes, and used antifreeze should not run off the proposed Project site into the surrounding environment. Therefore, the proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school. No impacts would occur (Class IV).

Impact HAZ-4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment

The proposed Project site is not located on a list (CALEPA 2011) of hazardous materials sites pursuant to Government Code Section 65962.5, and would not create a significant hazard to the public or the environment. No impacts would occur (Class IV).

Impact HAZ-5: 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 for people residing or working in the project area

The proposed Project is not located within 2 miles of an existing public or public use airport, and would not result in a safety hazard for people residing or working in the Project area. No impacts would occur (Class IV).

Impact HAZ-6: For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area

The proposed Project is not located within the vicinity of a private airstrip and would not result in a safety hazard for people residing or working in the Project area. No impacts would occur (Class IV).

Impact HAZ-7: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

The City of Irwindale currently maintains a Multi-Hazard Functional Plan that outlines responsibilities and procedures the City will follow in the event of an emergency or citywide disaster. Specific emergency functions and operations, available resources (fire stations, emergency shelters, hospitals and clinics, resource persons, etc.), and mutual aid agreements are described in the Plan. In the event of an emergency at the site due to fire or a hazardous waste spill, the proposed Project is not expected to interfere with emergency response or an emergency evacuation plan. CleanTech also has a Contingency Plan (discussed above in Impact HAZ-1) in place that outlines the emergency procedures that should be followed in the event of a release. This contingency plan has been has been submitted to and is on file with the Los Angeles County Fire Department.

According to the Safety Plan located within the City of Irwindale General Plan (Exhibit 6-6 of the City of Irwindale General Plan June 2008), the City of Irwindale has identified Arrow Highway, Live Oak Avenue, Foothill Boulevard, and Irwindale Avenue as emergency evacuation routes. With the implementation of MM TR-1.1 (discussed in Section 3.8 - Transportation), proposed Project traffic would normally be

restricted to the following route: 210 Freeway exiting onto Irwindale Avenue, traveling south and turning right onto 1st Street, and then onto Martin Road. Therefore, only Irwindale Avenue would potentially be affected during an emergency evacuation. However, proposed Project traffic during construction and operation would not be heavy and is not expected to interfere with this established emergency evacuation route.

In the event the designated project truck route is unavailable due to Caltrans, California Highway Patrol, or other official closure/disruption, CleanTech would ensure all trucks would only utilize the contingency truck route, which would consist of Arrow Highway to Irwindale Avenue, to 1st Street, and onto Martin Road. As discussed for the primary route, proposed Project traffic during construction and operation would not be heavy and is not expected to interfere with Arrow Highway or Irwindale Avenue during an emergency evacuation on these roads.

Therefore, the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The implementation of MM TR-1.1 would further reduce less-than-significant impacts, as the proposed Project traffic would only utilize one of the roads (Irwindale Avenue) included in the emergency evacuation routes (Class III).

Impact HAZ-8: Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

Wildland fires are mostly prevalent during the dry summer months in Southern California. The proposed Project site, however, is located entirely within an industrial area within the City of Irwindale and is located 0.25 miles from the nearest coastal scrub and chaparral wildlands located within the SFDRA, and would not be changing location or exterior Project site features; and the proposed Project is not subject to significant risk or an increase in existing risk from any wildlands fires that may occur within the SFDRA. Additionally, the proposed Project would not have a significant potential to cause or increase the risk of causing wildlands fires. Furthermore, the Los Angeles County Fire Department would perform a Plan Check of the facility prior to construction. Therefore, the proposed Project would not expose people or structures to wildland fire hazards. Less-than-significant impacts would occur (Class III).

3.6 Hydrology and Water Quality

This section provides an overview of hydrology and water quality conditions in the Project area, and characterizes potential impacts of the Project to water resources, introducing mitigation measures, where required, to minimize or avoid impacts.

3.6.1 Existing Conditions

Climate in the Project area is generally warm and temperate, with the majority of precipitation occurring during winter months. Average annual temperature is 64.8°F (overall); the warmest month is August, with an average temperature of 75.9°F, while the coldest month is December, with an average temperature of approximately 55.0°F. Average annual precipitation totals about 17 inches. Surface waters, groundwaters, and flood hazard areas are described below.

Surface Water

The proposed Project is located within the San Gabriel River watershed, bound by the San Gabriel Mountains to the north, most of San Bernardino and Orange Counties to the east, the division of the Los Angeles River from the San Gabriel River to the west, and the Pacific Ocean to the south. The San Gabriel River drains for approximately 58 miles through the watershed, from the San Gabriel Mountains to the Pacific Ocean. Major tributaries to the San Gabriel River downstream of the Project site include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains entering from the 19 cities within the watershed both upstream and downstream of the Project site. The San Gabriel River receives drainage from a 689-square-mile area of eastern Los Angeles County, with headwaters on National Forest lands in the San Gabriel Mountains. The upper watershed area contains a series of flood control dams and reservoirs. Further downstream, toward the middle of the watershed, are large spreading grounds utilized for groundwater recharge. The San Gabriel River Watershed is hydraulically connected to the Los Angeles River through the Whittier Narrows Reservoir, located southwest of the Project site; water is typically only present in the Whittier Narrows Reservoir during high storm flows. The lower part of the San Gabriel River flows through a concrete-lined channel in a heavily urbanized portion of the county before becoming a soft bottom channel once again near the ocean in the City of Long Beach (LACDPW 2014; LARWQCB 2000).

Tributaries of the San Gabriel River and other small surface drainages in the watershed occur as small streams, which contain flows from a combination of runoff from the surrounding mountains, imported water conveyed to spreading grounds in the Central Subbasin of the Coastal Plain of Los Angeles Groundwater Basin, and treated sewage effluent (DWR 2004). There are no surface waters on the proposed Project site (other than man-made drainage facilities used to contain water on site for collection and treatment/transfer, or to direct waters into existing stormwater drainage facilities managed by the City of Irwindale).

The proposed Project site is located approximately 0.3 miles from the northeast quadrant of the Santa Fe Flood Control Basin, formed by the Santa Fe Dam. The primary purpose of the Santa Fe Dam is to provide flood protection to downstream communities between the Santa Fe Dam and Whittier Narrows Dam, as well as to provide (in conjunction with the Whittier Narrows Dam) flood protection along the Rio Hondo Channel, the Los Angeles River, and the San Gabriel River (LARWQCB 2000). The second authorized purpose of the Santa Fe Dam is to provide recreational opportunities; the Santa Fe Dam Recreational Area (SFDRA), discussed in Section 2.9.8 of this EIR, offers a 70-acre lake with year-round fishing and non-motorized watercraft usage (CLA-DPR 2014).

The Santa Fe Dam flood control basin is empty most of the year, but can hold more than 45,000 acre-feet of water in response to major precipitation events. The dam is operated by the Los Angeles County Department of Public Works, which diverts flood flows from behind the dam to spreading facilities to enhance conservation. During high flow periods, flood control releases are initiated when the reservoir level reaches 456 feet above mean sea level (AMSL) (USACE 2014). Santa Fe Dam's spillway structure (used to provide controlled release of flood flows) is located on the northwestern abutment of the dam, at a crest elevation of 496 feet AMSL (USACE 2014). The top of Santa Fe Dam measures 513 feet AMSL, 17 feet above the spillway structure.

Sewer

Surface water runoff on the Project site and immediate vicinity occurs in direct response to precipitation events, and is directed towards the existing City of Irwindale sewer system. No natural or constructed waterways are located on the Project site or immediate vicinity. Inspection of the City's sewer facilities conducted in 2011 revealed that approximately 95.5 percent of pipe segments with the City's system were free of severe structural defects (CLA-DPW 2011). A pump station is located at the south end of Martin Road, southeast of the Project site, and a trunk sewer line is east of the Project site, situated in a north-south alignment through the City of Azusa. Sewer facilities surrounding the Project site and in immediate vicinity of the Project site, including the trunk line located to the east, have a Quick Structural Rating (QSR) of "Minor", indicating that the facilities are in excellent condition with minor defects (CLA-DPW 2011).

Groundwater

The proposed Project area is underlain by the San Gabriel Canyon Groundwater Basin. This basin has a surface area of approximately 154,000 acres, or 255 square miles, including most of the San Gabriel Valley and a portion of the upper Santa Anna Valley. The San Gabriel Canyon Basin is bounded on the north by the Raymond fault and the contact between Quaternary sediments and consolidated basement rocks of the San Gabriel Mountains, while exposed consolidated rocks bound the basin to the south and west, and the Chino and San Jose faults for the eastern boundary. Water-bearing features are dominated by unconsolidated to semi-consolidated alluvium deposited by streams flowing out of the San Gabriel Mountains (see discussion of surface waters, above). (DWR 2004)

Recharge

Recharge to the San Gabriel Canyon Groundwater Basin occurs from direct percolation of precipitation and percolation of flow from San Gabriel Mountain streams. Subsurface flow also enters from the Raymond Basin, from the Chino Subbasin, and from fracture systems along the San Gabriel Mountains. Groundwater levels (depth to groundwater) fluctuate across this groundwater basin, but tend to generally follow topographic slope from the edges of the basin towards the center of the basin, and southwestward to exit through the Whittier Narrows (southwest of the proposed Project site) (DWR 2004).

Water Quality

Water quality in the San Gabriel Canyon Groundwater Basin is typically characterized by calcium bicarbonate, with varying concentrations of total dissolved solids (TDS). Four specific areas of the San Gabriel Valley Groundwater Basin have also been affected by Trichloroethylene, Perchloroethylene, and Carbon Tetrachloride contamination; these areas include the Whittier Narrows, Puente Basin, Baldwin Park, and El Monte areas (DWR 20014). In 1984, the U.S. Environmental Protection Agency (USEPA) identified these four areas as separate Superfund sites, which collectively underlie portions of the following cities: Alhambra, Arcadia, Azusa, Baldwin Park, Industry, El Monte, La Puente, Monrovia, Rosemead, South El Monte, and West Covina (USEPA 2013).

The USEPA is addressing these areas in five long-term remedial phases focused on cleanup of area-wide contamination. Cleanup projects, referred to as "Operable Units", are underway in each of the four identified Superfund sites; the proposed Project site is located within the Baldwin Park Operable Unit (BPOU) area. In 1999, the San Gabriel Basin Water Quality Authority (WQA), established by State Legislature to develop and implement groundwater treatment programs in the area, joined resources with the Main San Gabriel Basin Watermaster (described below), and the Upper San Gabriel Valley Municipal Water District to implement the BPOU (WQA 2014).

Water Budget

A comprehensive groundwater budget, or quantitative accounting of all inflows and outflows, is not currently available for the San Gabriel Canyon Groundwater Basin, due to a general lack of data. The basin is occupied by four major water agencies, which monitor four different regions of the basin; the Main San Gabriel Basin Watermaster, which monitors the largest portion of this groundwater basin, has jurisdiction of the area where the proposed Project is located.

The Main San Gabriel Basin Watermaster (Watermaster) is responsible for managing the San Gabriel Canyon Groundwater Basin per court decision to adjudicate this basin. In this role, the Watermaster's primary responsibilities include the following:

- Manage and control the withdrawal and replenishment of water supplies in the Basin;
- Determine the Operating Safe Yield (the amount of groundwater that can safely be extracted) for each year and notify groundwater pumpers of their shares thereof;
- Acquire and spread replacement water as needed;
- Coordinate local involvement to preserve and restore the quality of groundwater in the Basin;
- Assist regulatory agencies to enforce water quality regulations affecting the Basin;
- Collect production, water quality, and other relevant data from groundwater pumpers; and
- Prepare an annual report of activities, including finances and water use/diversion rates (MSGBW 2014).

Use of groundwater within the San Gabriel Canyon Groundwater Basin must be approved by the Watermaster. As described above, the Watermaster has also joined resources with the WQA and the Upper San Gabriel Municipal Water District to address groundwater contamination in the San Gabriel Valley area.

Flood Hazard Areas

The Project site is not located within a Flood Hazard Area as designated by the Federal Emergency Management Agency (FEMA). Flood Hazard Areas are those areas anticipated to be inundated by stormwater flows during a flood of the magnitude that would occur once every 100 years, or the flood with a 1 percent chance of occurring in any given year. Development is permitted within FEMA-designated Flood Hazard Areas, and must meet certain requirements in order to be eligible for flood insurance. As shown on FEMA Map Number 06037C1700F, the Project area is identified as Zone X, which indicates areas of minimal flood hazard, and it was determined to be outside the 0.2 percent annual chance floodplain (FEMA 2008). Therefore, it is assumed that the CleanTech site is reasonably free of flood hazard from major channels and streams, although localized flooding could potentially occur across the site in response to major precipitation events.

3.6.2 Regulatory Framework

Federal

Clean Water Act (CWA)

The Clean Water Act (33 U.S.C. Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States (U.S.) and has given the U.S. Environmental Protection Agency (USEPA) the authority to implement pollution control programs. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCBs). The proposed Project is within the jurisdiction of the Los Angeles RWQCB.

Section 402 of the CWA authorizes the California SWRCB to issue NPDES General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), referred to as the "General Construction Permit." Construction activities can comply with and be covered under the General Construction Permit, provided that they:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving off site into receiving waters,
- Eliminate or reduce non-storm water discharges to storm sewer systems and other waters of the nation, and
- Perform inspections of all BMPs.

For the proposed Project, NPDES regulations are administered by the Los Angeles RWQCB.

Section 401 of the CWA requires that any activity, including river or stream crossing during road, pipeline, or transmission line construction that may result in discharges into a State waterbody, must be certified by the local RWQCB. This certification ensures that the proposed activity does not violate State and/or federal water quality standards. The limits of non-tidal waters extend to the Ordinary High Water (OHW) line, defined as the line on the shore established by the fluctuation of water and indicated by physical characteristics, such as natural line impressed on the bank, changes in the character of the soil, and presence of debris. The USACE may issue either individual, site-specific permits or general, nationwide permits for discharge into U.S. waters.

Section 404 of the CWA establishes programs to regulate the discharge of dredged and fill material in waters of the U.S., including wetlands. When an application for a Section 404 permit is made, the applicant must show it has:

- Taken steps to avoid impacts to wetlands or waters of the U.S., where practicable;
- Minimized unavoidable impacts on waters of the U.S. and wetlands; and
- Provided mitigation for unavoidable impacts.

Section 404 of the CWA requires a permit for construction activities involving placement of any kind of fill material into waters of the U.S. or wetlands. A Water Quality Certification pursuant to Section 401 of the CWA is required for Section 404 permit actions. If applicable, construction would also require a request for Water Quality Certification (or waiver thereof) from the Los Angeles RWQCB. Proposed Project activities would adhere to State and federal water quality standards and would be in compliance with Sections 401 and 404 of the CWA.

Section 303(d) of the CWA (CWA, 33 USC 1250, et seq., at 1313(d)) requires states to identify "impaired" water bodies as those that do not meet water quality standards. States are required to compile this information in a list and submit the list to the USEPA for review and approval. This list is known as the Section 303(d) list of impaired waters. As part of this listing process, states are required to prioritize waters and watersheds for future development of TMDL requirements. The SWRCB and RWQCBs have ongoing efforts to monitor and assess water quality to prepare the Section 303(d) list, and to develop TMDL requirements.

National Flood Insurance Program (NFIP)

The NFIP, implemented by the U.S. Congress in 1968, enables participating communities to purchase flood insurance. Flood insurance rates are set according to flood-prone status of property as indicated by Flood Insurance Rate Maps (FIRM) developed by the Federal Emergency Management Agency. FIRMs identify the estimated limits of the 100 year floodplain for mapped watercourses, among other flood hazards. As a condition of participation in the NFIP, communities must adopt regulations for floodplain development intended to reduce flood damage for new development through such measures as flood proofing, elevation on fill, or floodplain avoidance. Los Angeles County participates in the NFIP. FIRM Number 06037C1700F indicates that the Project site is not located within a FEMA-designated Flood Hazard Area.

State

Porter-Cologne Water Quality Control Act

The SWRCB regulates water quality through the Porter-Cologne Water Quality Act of 1969, which contains a complete framework for the regulation of waste discharges to both surface waters and groundwater of the state. On the regional level, the proposed Project falls under the jurisdiction of the Los Angeles RWQCB, which is responsible for the implementation of State and federal water quality protection statutes, regulations, and guidelines. The Los Angeles RWQCB has developed a Water Quality Control Plan (Basin Plan) to show how the quality of the surface and ground waters in the Los Angeles Region should be managed to provide the highest water quality reasonably possible. The Basin Plan lists the various beneficial uses of water within the region, describes the water quality that must be maintained to allow those uses, describes the programs, projects, and other actions that are necessary to achieve the standards established in this plan, and summarizes plans and policies to protect water quality. The proposed Project would be expected to not disrupt current or designated beneficial uses of surface waters.

California Fish and Game Code

Section 1602 of the California Fish and Game Code protects the natural flow, bed, channel, and bank of any river, stream, or lake designated by the California Department of Fish and Wildlife (CDFW) in which there is, at any time, any existing fish or wildlife resources, or benefit for the resources.

Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State, and requires any person, state, local governmental agency, or public utility to notify the CDFW before beginning any activity that will:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

The California Fish and Game Code is discussed further in Section 3.3 (Biological Resources).

California Water Code §13260

California Water Code §13260 requires that any person discharging or proposing to discharge waste within any region that could affect the quality of the waters of the State, other than into a community sewer system, must submit a report of waste discharge to the applicable RWQCB. Any actions related to the proposed Project that would be applicable to California Water Code §13260 would be reported to the Los Angeles RWQCB.

Local

The Project site is located within the City of Irwindale, and is therefore subject to ordinances and zoning requirements associated with this local jurisdiction. Following is the specific policy identified within the City of Irwindale's General Plan that is considered applicable to the proposed Project (City of Irwindale 2008).

Resource Management Element Issue Area – Resource Preservation. The City of Irwindale will maintain and preserve those natural and man-made amenities that contribute to the City's livability.

- Policy - The City will continue to cooperate with the other agencies that are charged with improving air and water quality in the region.

3.6.3 Project Impacts and Mitigation

This analysis of hydrology and water quality impacts characterizes how the Project's short-term (construction) and long-term (operational) activities would alter the existing conditions relevant to hydrology and water quality (discussed above in Section 3.6.1). The methodology used in conducting this analysis included a review of existing data and literature, and assessment of the proposed Project activities against the existing conditions, with regards to the significance criteria identified in Appendix G of the CEQA Guidelines. Therefore, the proposed Project would result in potentially significant effects to hydrology and water quality if one or more of the criteria listed below are met as a result of Project activities.

HYD-1: Violate any water quality standards or waste discharge requirements.

HYD-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).

HYD-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.

HYD-4: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.

HYD-5: 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.

HYD-6: Otherwise substantially degrade water quality.

HYD-7: Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

HYD-8: Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

HYD-9: Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

HYD-10: Inundation by seiche, tsunami, or mudflow.

Project Impacts

Impact HYD-1: Violate any water quality standards or waste discharge requirements.

The proposed Project would not discharge any wastewater, and would not require a waste discharge permit or violate any waste discharge requirements. Water used to clean the outside of tanks, containment systems/areas, and truck ramps would be collected and pumped into a non-Resources Conservation Recovery Act (RCRA) wastewater tank for transport to an authorized treatment or disposal facility. An Industrial Wastewater Discharge Permit issued by the Los Angeles County Public Works and Sanitation Districts would be required for any discharge of wastewater into the sewer system; because such discharge is not proposed, this permit is not required for the proposed Project.

Construction activities would violate water quality permits through the accidental spill or leak of hazardous materials.

As described in Section 2-8 (Project Approvals), the Project would occur under a Hazardous Waste Facility (HWF) permit, to be approved by DTSC, as well as renewed taxation registrations and agreements, motor carrier permits, hazardous waste transporter registration, hazardous materials certificate of registration, consolidated transporter notification, hazardous material transportation license, and business license; each of these permits/agreements will address water quality through the specification of protocols and procedures. In addition, the applicant has applied for a stormwater discharge permit and is revising an existing SWPPP, required for NPDES and CWA compliance, in order to address the recycled oil filtering and oil filter crushing operations recently added to the site. The applicant will revise the storm water discharge permit and SWPPP once again if the proposed Project is approved. An existing Non Discharge Industrial Wastewater Discharge Permit would also be amended to account for the Project, addressing the size of the Project and quantities of materials to be removed off site for disposal/treatment.

Although the permits/agreements described above would be implemented as part of the Project, there is some potential that unforeseen events could result in the violation of a water quality permit. Specifically, construction of the Project would include the use of heavy equipment and machinery that

would have the potential to leak hazardous materials such as fuel or lubricants; such potential would be present if equipment and/or machinery is operated, maintained, or stored improperly. If such a leak were to occur, it would introduce the potential to result in water quality degradation if not addressed immediately and if water is present in the Project area at the time of the spill or leak. Employee training would help to minimize the potential for an accidental spill or leak of hazardous materials to occur, thereby minimizing the potential to violate a water quality permit.

As described in Section 2.5.4, all Project employees (20 total employees, not including truck drivers) would receive annual training in various areas, depending on their specific roles and responsibilities. Areas of training include the following:

- Hazardous Waste Operations and Emergency Training Course (HAZWOPER),
- Permit Required Confined Space Entry,
- Contingency Plan,
- Evacuation Procedures,
- Spill Prevention Control and Countermeasure Plan,
- Department of Transportation Related Training,
- Hazard Communication, and
- Stormwater Pollution Prevention.

Mitigation Measure (MM) HYD-1.1 (Demonstrate compliance with water quality permits) would ensure that all water permits required for implementation of the Project are properly secured and implemented prior to Project construction. In addition, MM HAZ-1.1 (Hazardous Materials Emergency Response Transportation Plan), presented in Section 3.5.3, would require the implementation of a Hazardous Materials Emergency Response Transportation Plan (HMERTP) to ensure that all employees, including truck drivers responsible for transporting hazardous materials to and from the Project site, would be trained to both minimize the potential for an accidental spill or release of hazardous materials to occur, and to minimize the potential for adverse effects associated with such a release through quick and effective containment and clean-up. Therefore, potential effects associated with the violation of water quality permit or waste discharge requirement would be less than significant with mitigation (Class II).

Operational activities would degrade water quality through the accidental spill or leak of hazardous materials.

The entire active area of the Project site is bermed, diked, or underlain with sumps for the containment of accidental spills, where all activities proposed to occur during Project operations would take place in areas protected by these containment measures, such that any accidental spill or release of hazardous materials during on-site handling and storage would be contained, and such materials would not be allowed to migrate within or away from the Project site such that water quality degradation could occur. Project operations would not include groundwater pumping (discussed below, under Impact HYD-2) and would not require excavation or other ground-disturbing activities with potential to accidentally encounter local groundwater resources. In addition, as described above and in Sections 2.5.4 and 3.5, all Project employees would be properly trained and evaluated over the operating life of the Project in order to avoid adverse impacts associated with the handling and use of hazardous materials, including training related to accidental release. Therefore, although there is some potential that Project operational activities could result in an accidental spill or release of hazardous materials, such a spill or release would be highly unlikely, would be effectively contained on site and quickly responded to and cleaned, and would not have potential to migrate to surface waters or groundwater that would be in violation of water quality permits or waste discharge requirements. Impact would be less than significant without mitigation (Class III).

Mitigation Measures

MM HYD-1.1: Demonstrate compliance with water quality permits

Prior to construction, the Project owner shall submit satisfactory evidence to DTSC that all agencies with jurisdiction over the Project have been contacted and whether or not each agency requires a permit associated with water resources for the Project. Where a permit is required, the Project owner shall provide a copy of all the conditions required by that agency to DTSC.

MM HAZ-1.1: Hazardous Materials Emergency Response Transportation Plan

See Section 3.5.3 for full text.

Impact HYD-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge.

Local groundwater supplies could be depleted due to direct pumping of groundwater from the basin, and/or if substantial new areas of impermeable surfaces are introduced such that recharge rates and patterns to the underlying basin are affected. The proposed Project would not directly use local groundwater resources, and would not alter existing infiltration or recharge patterns such that local groundwater supplies would be affected, as described below.

The proposed Project would require a temporary water supply during construction, as well as a long-term water supply during operation, but would not pump local groundwater towards these purposes. Per the City of Irwindale's updated General Plan, utility services for the City are generally adequate, and several different water purveyors serve the City (City of Irwindale 2008). The Azusa Water Department is one of these purveyors, and provides basic service to the largest portion of Irwindale, including all of the Santa Fe Dam area located to the east of the San Gabriel River Freeway (City of Irwindale 2008). As described in Section 2.9.9 (Utilities and Service Systems), the Azusa Power Department would be able to support the water usage from the temporary construction activities and the small permanent increase in water use associated with operation activities. Therefore, sufficient water supplies are available to serve the proposed Project from existing entitlements and resources, and no new or expanded water entitlements would be required; no groundwater would be pumped for the Project.

The Project site is currently paved and characterized by the dominant presence of impermeable structures and surfaces. This general condition would be maintained with implementation of the proposed Project, and no substantial new areas of impermeable surfaces would be introduced such that groundwater recharge would be affected. In addition, surface drainage and runoff patterns would be maintained with implementation of the Project, and downstream groundwater recharge would therefore not be affected. No impact would occur (Class IV).

Impact HYD-3: Substantially alter the existing drainage pattern of the site or area to result in substantial erosion or siltation on or off site.

The proposed Project site is currently disturbed and covered with concrete and permanent infrastructure; the proposed Project would not alter this general condition. Consistent with existing drainage patterns, surface flows would be directed into an existing engineered swale in the northeastern truck parking portion of the Project site, aligned in an east-west configuration, with flows directed towards the site entrance located on the northwestern corner of the site. The swale transitions to a channel covered with slotted steel plate where it runs through the employee vehicle parking area. At the entrance to the Project site, stormwater flow discharges to the City of Irwindale's sewer system. The Project would not substantially alter existing drainage patterns.

The proposed Project would not alter the course of any stream or river, and would not substantially alter the existing drainage pattern of the site or area. Ground-disturbing activities would occur during the Project's construction period, and soils would be exposed for brief periods. The Project would include implementation of a SWPPP for NPDES and CWA compliance, to be approved by the Los Angeles RWQCB, as well as a Grading Permit issued by the City of Irwindale Building and Safety Department (see Table 2-8), both of which will specify BMPs to be implemented during ground-disturbing activities. Standard BMPs expected to be required include restricting construction activities during wet weather or when major precipitation events are anticipated, securing disturbed soils during wet weather by applying plastic covers or tarps to exposed areas, and maintaining erosion control features, such as straw wattles or fences around the construction area, as appropriate. In addition, the Project site is paved and relatively flat, and not considered highly susceptible to erosion and siltation. Therefore, construction of the proposed Project would not result in substantial erosion or siltation on or off site. Operation of the Project would not include ground-disturbing activities or otherwise disturb or expose soils such that erosion or siltation would occur on or off site. Impact would be less than significant with no mitigation (Class III).

Impact HYD-4: Substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.

As described above, the Project would not alter the course of any stream or river, and would not substantially alter the existing drainage pattern of the site or area. The Project site is designed to accommodate existing and projected stormwater flows, and the proposed Project would not require construction of new stormwater drainage facilities. Additionally, the Project would not introduce new areas of impervious surfaces that would have the potential to affect the rates or patterns of surface water runoff. The Project would therefore not result in flooding on or off site. No impact would occur (Class IV).

Impact HYD-5: 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.

As described above, the Project would not increase runoff from the Project site, or otherwise substantially alter drainage patterns such that surface water runoff rates or patterns would be adversely affected. The Project site is designed to accommodate existing and projected stormwater flows, and would not create or contribute runoff that could exceed the capacity of existing or planned drainage systems.

Regarding the potential to provide substantial additional sources of polluted runoff during both construction and operation, the proposed Project would occur in compliance with a suite of permits described in Table 2-8 (Required Permits and Approvals), as well as with an SWPPP to be implemented for NPDES and CWA compliance; this would include implementation of a suite of BMPs to avoid water quality degradation. Stormwater discharged from the Project site would be periodically tested per stormwater discharge permit requirements and for consistency with BMPs identified in the SWPPP, thereby ensuring compliance with water quality standards set by the RWQCB. In response to precipitation events, rainwater may collect in the ramp containment areas; this water would be tested for quality and only released into the existing surface drainage system if the RWQCB-designated water quality standards are met. If any pooled rainwater does not meet regulatory discharge standards, it would be pumped into one of the indoor sumps, then to one of the non-RCRA oily wastewater tanks for

storage and eventual transport to a permitted hazardous waste disposal or treatment facility; no such water would be discharged on the Project site. Therefore, neither construction nor operation and maintenance of the proposed Project would provide substantial additional sources of polluted runoff, so impacts would be less than significant (Class III).

Impact HYD-6: Otherwise substantially degrade water quality.

Potential water quality impacts associated with the proposed Project are characterized above, under Impacts HYD-1 and HYD-5; in addition to the above, Project activities could potentially result in indirect off-site impacts to water quality during the transport of hazardous materials to and/or from the Project site. Potential water quality impacts associated with the accidental release of hazardous materials during on-site Project construction and operation activities are addressed under Impact HYD-1. In addition to on-site activities, the Project would also include the transport of hazardous materials to and from the Project site; this impact addresses the potential for water quality impacts to occur if hazardous materials are accidentally released during transport.

Described in detail in Section 2.5.1 (Process Description), the following is a brief list of the types of materials that would be shipped to and/or from the Project site during operations.

- Used Oil – would be picked up from waste generator site(s) and transported to the Project site primarily using bobtail tanker trucks, but a small amount will also be trucked to the site in drums.
- Recycled Oil – The certified recycled oil, or used oil that cannot be certified as recycled oil, will be transported from the site using semi-tanker trucks.
- Waste Antifreeze – would be picked up from the waste generator site, along with the used oil, by bobtail tanker trucks and transported to the Project site; waste antifreeze would not be treated at the Project site, but pending quality determinations it would be returned to the generator(s) or to an approved facility for disposal or processing, primarily using semi-tanker trucks.
- Non-RCRA Oily Wastewater – would be transported to the Project site from generator(s) using bobtail box trucks, as well as generated on site as part of site clean-up activities and from the rainwater collected from the loading and unloading ramps; would be bulked and transported by semi-trucks for proper disposal at approved facilities.
- Oily Solid Waste – would be transported to the Project site in drums and totes using bobtail box trucks, stored on site, and shipped off site for treatment or disposal using semi-trucks; oily solid wastes would not be treated on site, but may be bulked into roll-off boxes (dumpster-like containers).

During transport to and/or from the Project site, there is a very small potential that one or more of the types of materials described above could be accidentally leaked or released, particularly if a serious traffic accident were to occur involving the Project's transport trucks, and/or if the materials are improperly secured or transported. If such a release were to occur, it is possible that the released material(s) could migrate to surface waters (including stormwater drainage facilities), particularly if a precipitation event occurs at the same time or immediately following the accidental release.

As described under Impact HYD-1 and in Sections 2.5.4 and 3.5, all Project employees would be properly trained and evaluated over the operating life of the Project in order to avoid adverse impacts associated with the handling and use of hazardous materials; this training would include spill prevention measures and emergency response actions. Implementation of MM HAZ-1.1, presented in Section 3.5.3 and under Impact HYD-1, would ensure that all workers associated with the Project, including on-site personnel as well as truck drivers responsible for transporting materials to and from the Project site, would receive training on spill prevention and emergency response. Therefore, although there is some potential that

Project operational activities could result in the accidental spill or release of hazardous materials, such a spill or release would be highly unlikely, and would be quickly and effectively managed. Impact would be less than significant with mitigation (Class II).

Impact HYD-7: Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

The proposed Project is not located within a FEMA-designated Flood Hazard Area, or 100-year floodplain. In addition, the proposed Project does not involve the construction of any housing, and would not alter existing flooding or drainage patterns in the area such that existing housing units could be introduced to flooding hazards. Drainage pattern alterations are further discussed under Impacts HYD-3 and HYD-4, above. No impact would occur (Class IV).

Impact HYD-8: Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

As described above, the proposed Project is not located within a FEMA-designated Flood Hazard Area or 100-year floodplain. The Project would not introduce features or infrastructure with potential to impede or redirect flood flows. As described under Impact HYD-3, existing stormwater flow and drainage patterns on the Project site would be maintained with implementation of the Project, and the Project would not introduce substantial new areas of impervious surfaces that could increase or otherwise alter stormwater flow patterns. The Project would not alter any potential for flooding to occur on the Project site. No impact would occur (Class IV).

Impact HYD-9: Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

The Project site is located adjacent to the east of the area identified as “flood and inundation risk” in the City of Irwindale General Plan (City of Irwindale 2008). The site is approximately 0.75 miles from the beach of the Santa Fe Dam Recreation Area; however, due to the aforementioned designation in the City’s General Plan, as well as differences in elevation between the Santa Fe Dam flood control basin and the proposed Project site, the site is not considered to be at risk of flooding as a result of the failure of the Santa Fe Dam. Elevation at the Project site is roughly 520 feet AMSL, above the maximum elevation of water impounded behind Santa Fe Dam; in addition, water escaping the Santa Fe Basin would follow topography and flow down the existing gradient into the San Gabriel River, away from the Project site. There are no other levees or dams in the proposed Project area. Other potential flooding hazards are discussed above, under Impacts HYD-7 and HYD-8. No impact would occur (Class IV).

Impact HYD-10: Inundation by seiche, tsunami, or mudflow.

Seiches, tsunamis, and mudflows are all events associated with extreme weather. Due to the Project site location and existing topography, the site is not considered subject to inundation by seiches, tsunamis, or mudflows, as summarized below.

- **Seiche.** A seiche is a series of waves caused by an earthquake within an enclosed or semi-enclosed body of water. The Project site is located downstream of the Santa Fe Basin, which is a semi-enclosed body of water that could potentially experience seiches in response to strong seismic ground shaking. However, as described above under Impact HYD-9, elevation of the Project site is greater than the maximum elevation of water impounded by Santa Fe Dam, and any water

overtopping the dam or otherwise released is anticipated to flow down the existing gradient into the San Gabriel River, away from the Project site. The Project site is not considered subject to inundation by seiche.

- **Tsunami.** A tsunami is a series of large ocean waves, often referred to as "tidal waves", that may occur in response to a strong seismic event. The Project site is located approximately 30 miles from the Pacific Ocean, and is therefore not considered subject to inundation by tsunami.
- **Mudflow.** A mudflow is an event where sediments become overly saturated and move rapidly downhill as high-sediment-laden stormflow. Mudflows typically occur on steep slopes where vegetation is not sufficient to prevent rapid erosion. Mudflows could potentially occur on steeper areas of the San Gabriel Mountains, but the Project site is located approximately 5 miles away from the mountain slopes and is therefore not considered subject to inundation by mudflow. The Project would have no effect on existing potential for mudflow in the area.

No impact would occur (Class IV).

3.7 Noise

3.7.1 Existing Conditions

Terminology

The assessment of noise impacts uses specific terminology and descriptors not commonly used in everyday conversation. Therefore, to assist in a thorough understanding of the subsequent analysis, Table 3.7-1 provides definitions for technical terminology utilized.

TABLE 3.7-1. SUMMARY OF ACOUSTICAL TERMS

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
A-Weighted Sound Level (dBA)	The sound level in decibels as measured on a sound level meter using the A weighted filter network. The A-weighted filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
Ambient Noise Level	The composite noise from all sources resulting in the normal, existing level of environmental noise at a given location. The Leq, as defined below, typically defines the ambient level.
Equivalent Noise Level (Leq)	The average A-weighted dB level, on an equal energy basis, during the measurement period.
Maximum Noise Level (Lmax)	The maximum noise level during a sound measurement period.
Minimum Noise Level (Lmin)	The maximum noise level during a sound measurement period.
Peak Level	The peak is not the same as the Lmax. The peak level is the maximum value reached by the sound pressure. There is no time-constant applied.
Community Noise Equivalent Level (CNEL)	CNEL can be used to characterize average noise levels over a 24-hour period, with weighting factors included for evening and nighttime noise levels. Leq values for the evening period (7:00 p.m.-10:00 p.m.) are increased by 5 dB, while Leq values for the nighttime period (10:00 p.m.-7:00 a.m.) are increased by 10 dB.

Noise-Sensitive Receptors

An example of noise-sensitive receptors would be schools, hospitals, residences, and recreational facilities. As discussed in Section 2.2, the Project site is surrounded by other commercial/industrial uses. The nearest sensitive receptor to the site is the Santa Fe Dam Recreational Use Area. Site reconnaissance showed the nearest Santa Fe Dam recreational trail is located approximately 3,000 feet southwest of the proposed Project and is separated by several blocks of industrial uses and open space.

As discussed in Section 3.8 (Transportation), both primary and contingency truck routes have been identified for the Project. A land use survey was conducted to identify any potentially sensitive receptors adjacent to either the primary or contingency truck routes. No sensitive receptors were identified as being located within 1,000 feet of the primary truck route. The nearest sensitive receptors to the contingency truck route are residential properties located approximately 800 to 1,000 feet south of Arrow Highway.

Ambient Noise Conditions

Four short-term noise measurements were conducted near the proposed Project site and primary/contingency truck routes to document ambient conditions. The locations of these noise measurements are shown in Figure 3.7-1. Two of these noise measurements were taken at the nearest sensitive receptors to the contingency truck route (Figure 3.7-1, locations 3 and 4). The results of these measurements are shown in Table 3.7-2.

TABLE 3.7-2. AMBIENT NOISE MEASUREMENTS

No.	Description	Measurement					
		Time	Leq	Lmin	Lmax	Peak	Notes
1	East 1st Street approximately 250' west of Martin Road and CleanTech Facility	11:45 a.m. - 12:00 p.m.	69.8	52.1	97.4	107.3	Main noise source was heavy truck trips accessing adjacent industrial uses.
2	Irwindale Avenue south of Gateway Business Drive (Primary Truck Route). Approximately 40' east of Irwindale Avenue.	12:05 p.m. - 12:20 p.m.	73.1	57.3	80.7	99.9	Main noise source was significant heavy truck and other passenger vehicle trips on Irwindale Avenue.
3	Residential receptor on Elton Street south of Joanbridge Street, approximately 1,000' south of Arrow Highway (Contingency Truck Route)	12:40 p.m. - 1:00 p.m.	58.9	42.7	80.3	83.8	Main noise source was activities at adjacent industrial uses. Minor truck and passenger vehicle trips traveling on Elton Street.
4	Residential receptor on Maine Avenue south of Joanbridge Street, approximately 800' south of Arrow Highway (Contingency Truck Route)	1:15 p.m. – 1:35 p.m.	61.4	46.1	81.4	85.0	Main noise sources were activities at adjacent industrial uses and moderate truck and passenger vehicle trips traveling on Maine Avenue Street.

Notes: All measurements are in dBA and were taken on Tuesday, February 18, 2014 using a Quest Technologies Model 2800 Impulse Integrating Sound Level Meter.

3.7.2 Regulatory Framework

As shown in Figure 3.7-1, the CleanTech site is located entirely within the City of Irwindale and the primary truck route up to the 210 freeway is located through or directly adjacent to the Cities of Irwindale and Azusa. The majority of the contingency truck route is also located within the City of Irwindale, except for the segment of Irwindale Avenue between 1st Street and Gladstone Street, which is within the City of Azusa. The residential receptors nearest the contingency truck route (refer to locations 3 and 4 in Figure 3.7-1) are located within the City of Baldwin Park.

Figure 3.7-1

Noise Measurement Locations

Municipal Code

The applicable municipal code noise ordinance standards from these three cities are identified below in Table 3.7-3.

TABLE 3.7-3. APPLICABLE NOISE REGULATIONS

City	Applicable Municipal Code Standard
Irwindale	Section 9.28.030: • A. Where the ambient noise level is less than designated in this section the ambient base noise level in this section shall govern.

Zone	Ambient Noise Level	
	10 p.m. to 7 a.m.	7 a.m. to 10 p.m.
Residential	45	50
Commercial	50	55
Industrial	60	70

City	Applicable Municipal Code Standard
Irwindale	• B. Any noise at a level which exceeds the ambient or the ambient base level as set forth in subsection A of this section, whichever is greater, by more than ten dB when measured at any boundary line of the property for which the noise emanates shall constitute sufficient proof of a violation.
	Section 9.28.040: It is unlawful for any person to willfully make or continue, or cause to be made or continued any noise at a level which exceeds by more than five dB the ambient or the ambient base level as set forth in Section 9.28.030, whichever is greater, when measured at any boundary line of the property from which the noise emanates.
	Section 9.28.120: The noise level from industrial plants, auto wreckers, junkyards, racetracks or other industrial user shall not exceed the levels set forth in Section 9.28.040 (or ambient), except as may be specifically authorized by permit from the city.
	Section 9.28.140: It is unlawful for any person to operate any motor-driven vehicle within the city in such a manner producing noise which would constitute a violation of Section 9.28.040 (or ambient).
Azusa	Section 46-406: It shall be unlawful for any person at any location within the incorporated area of the city to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level when measured on any residential, public institutional, professional, commercial or industrial property, either within or without the city, to exceed the applicable noise standards: (1) For a cumulative period of more than 30 minutes in any hour; (2) Plus 5 db(A) for a cumulative period of more than 15 minutes in any hour; (3) Plus 10 db(A) for a cumulative period of more than five minutes in any hour; (4) Plus 15 db(A) for a cumulative period of more than one minute in any hour; or (5) Plus 20 db(A) for any period of time.
Baldwin Park	Section 130.37 (J): Exceptions. There are exempted from this chapter the following: (5) Commercial motor vehicle operations; (10) Any noise or situation within the scope of Sections 23130 or 23109 of the Vehicle Code of the state.

Source: Municode 2014.

General Plan

In addition to municipal codes, the General Plan for each city was reviewed for any applicable policies or standards. The following identifies applicable General Plan policies related to noise:

- City of Irwindale 2008 General Plan Update: No policies related to noise performance standards or land use compatibility were found.

- City of Azusa 2004 General Plan: The portion of Irwindale Avenue along the contingency truck route is identified as being in a "High Noise Area" (General Plan Figure N-1). This segment of Irwindale Avenue is classified as being a 75 dB CNEL corridor (General Plan Figure N-3).
  The following policies are applicable to the proposed Project contingency truck route:
  - Chapter 3 (Built Environment):
    - Policy 10.7: Control the development of industrial and other uses that use, store, produce, or transport toxins, generate unacceptable levels of noise, air emissions, or contribute other pollutants requiring adequate mitigation measures confirmed by environmental review and monitoring.
  - Chapter 5 (Natural Environment):
    - Noise Policy 1.4: Maintain or reduce noise levels within acceptable levels adjacent to industrial processing and mining activities and the San Gabriel Valley Gun Club.
- City of Baldwin Park 2020 General Plan. The City of Baldwin Park Noise element specifies Arrow Highway as being a target 65 dB CNEL corridor, with 65 CNEL defined as the threshold for single-family residential compatibility. The following policies are applicable to the proposed Project contingency truck route:
  - Noise Element:
    - Policy 4.3: Reduce transportation noise through proper design and coordination of routing.

3.7.3 Project Impacts and Mitigation

Attenuation of Noise

Line sources of noise, such as roadway traffic, attenuate (lessen) at a rate of 3.0 dBA to 4.5 dBA per doubling of distance from the source, based on the inverse square law and the equation for cylindrical spreading of noise waves over hard and soft surfaces (Caltrans 1998). Under the same principals, point sources of noise, including stationary and idle mobile sources such as idling vehicles or onsite equipment, attenuate at a rate of 6.0 dBA to 7.5 dBA per doubling of distance from the source (Caltrans 1998).

Significance Criteria

Project construction and operation would produce significant noise impacts under the following circumstances:

NOI-1: Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

NOI-2: Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

NOI-3: A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

NOI-4: A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

NOI-5: Expose people residing or working in the project area to excessive noise levels from adjacent public airports or private airstrips.

Project Impacts

Impact NOI-1: Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Construction

As described in Section 2.4, construction at the Project facility would occur in three main phases, with the overall construction schedule estimated at 6 to7 months assuming all phases are built out sequentially. Off-road equipment likely used during construction includes a concrete saw, bobcat, backhoe, scissor lift, and parked concrete pumping truck during major pours. Typical noise levels from these, or similar, equipment is presented in Table 3.7-4.

TABLE 3.7-4. TYPICAL NOISE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	dBA at 50-Feet
Concrete Saw	90
Front End Loader	79
Concrete Pump Truck	81
Backhoes	78

Source: FHWA 2006; FTA 2006

On-Site Noise. The nearest adjacent unsheltered property line is an industrial use location, approximately 250 feet west of the proposed Project site and is represented in Table 3.7-2, location 1. Based on attenuation, on-site construction noise would attenuate approximately 12 to 15 dB at this location. When the equipment noise levels presented in Table 3.7-4 are reduced to this attenuated level, the remaining noise is below the recorded Lmax and Peak levels documented under ambient noise conditions at this location (refer to Table 3.7-2, location 1). Additionally, on-site construction equipment will not be in constant use and would influence ambient conditions similar to Lmax noise recorded at location 1. Therefore, noise generated by these uses is expected to have a nominal impact to the overall ambient Leq level at this adjacent property line (industrial use). Therefore, construction of the proposed Project is not expected to increase the Leq (average ambient condition) by five dB during daytime hours and so would be in compliance with City of Irwindale Municipal Code Section 9.28.030 and 9.28.040.

As discussed in Section 2.4, on-site construction work will occur 5 or 6 days per week (Monday through Friday, Saturday), normally 8 to 10 hours per day (7:00 a.m. to 5:00 p.m.), or more as needed during the completion of the concrete work. Most of the construction activities would be performed inside of the existing site building which would reduce construction noise levels below City of Irwindale Municipal Code Sections 9.28.030 and 9.28.040 restrictions. However, if noisy outdoor construction work, such as concrete sawing, were to occur during overnight hours, there would be the potential to exceed the City's Municipal Code restrictions. Mitigation Measure NOI-1.1 is included to ensure compliance with City of Irwindale Municipal Code Sections 9.28.030 and 9.28.040 should concrete work, or other construction activities, need to extend beyond normal workday hours, specifically between 10:00 p.m. and 7:00 a.m. With the inclusion of this mitigation measure, noise from on-site Project construction will result in less-than-significant impacts.

No residential receptors are located within 500 feet of the proposed Project site. Therefore, the Project's construction is not subject to City of Irwindale Municipal Code Noise Ordinance Section 9.28.110, Part A.

Mobile Noise. Construction will result in noise from heavy truck trips traveling to and from the Project site. Construction is expected to require a maximum of 20 daily heavy truck round trips (refer to Appendix A). Because operation of the facility also includes similar heavy truck trips, the mobile source noise analysis provided below for Project operation also covers mobile construction noise. Construction trucks will also utilize the primary truck route only, unless use of the contingency route is required. As discussed below, mobile construction noise will be in compliance with all applicable noise regulations.

Operation

On-Site Noise. The Project facility, as described in Sections 2.3 and 2.5, would be operated 24 hours per day, 6 days per week (Sunday through Friday), 52 weeks per year. New processes will all be within enclosed structures with engineered concrete containment, including the drum storage area, which will have a drivable berm. Therefore, process operations of the facility will not generate any noise outside of the facility.

On-site exterior facility noise will be limited to loading and unloading activities. This noise would be intermittent, with an estimated level below 75 dB (when compared to noise levels presented in Table 3.7-4). Such noise is expected to have a nominal impact to the average ambient Leq level at adjacent industrial receptors. Therefore, Project operation would not increase average ambient noise conditions by 5 dB and will be in compliance with City of Irwindale Municipal Code Sections 9.28.030 and 9.28.040, and 9.28.120.

Mobile Noise. Noise from mobile sources will result primarily from truck trips and to a much lesser extent from employee passenger vehicle trips. Truck trips are limited to Monday through Friday, while employees will travel to the site Sunday through Friday. As discussed in Section 3.8 (Transportation), the Project accounts for a net increase of 42 daily truck round trips for the received wastes and the processed waste load-out. As also discussed in Section 3.8, both primary and contingency truck routes have been identified, with the contingency truck route only utilized by trucks (construction and operation) should the primary route be officially unavailable.

Table 3.7-5 identifies estimated loaded truck noise versus distance.

TABLE 3.7-5. ESTIMATED LOADED TRUCK NOISE LEVELS VERSUS DISTANCE

Distance from Roadway (feet)	Noise Level (dBA)[1]
50	81
100	77
200	73
400	65
800	61

1 Assumes attenuation of 4 dB per doubling of distance, to account for both hard and soft surfaces adjacent to truck routes. Assumes heavy truck speeds <40 mph and medium truck speeds <65 mph.
Source: Caltrans 1998 (Figure N-5511.1).

Primary Truck Route. The primary truck route travels through or directly adjacent to the cities of Irwindale and Azusa. Ambient noise levels along the primary truck route are represented in Table 3.7-2, locations 1 and 2. As discussed earlier, no sensitive receptors are located within 800 feet of the primary truck route. Because truck noise is intermittent, Lmax levels at locations 1 and 2 are representative of existing truck trip dB levels. As shown in Tables 3.7-2 and 3.7-5, truck noise levels associated with Project operation would be similar to that occurring under existing conditions along the primary truck route.

While truck trips may occur 24 hours a day, 5 days a week, the majority will occur between 7:00 a.m. and 7:00 p.m. While the ambient noise measurements were recorded during the daytime, field observation of adjacent land uses indicates heavy truck trips likely occur along the primary truck route 24 hours a day.

Operation of the Project is not expected to increase average ambient noise conditions along the primary truck route by 5 dB or exceed the performance standards specified by City of Azusa Municipal Code Section 46-406. This is due to:

- The low number of daily truck trips generated by the Project during both construction (28) and maximum operation (46),
- The intermittent nature of truck trip noise,
- The designation of Irwindale Avenue as a truck route by both the cities of Irwindale and Azusa (refer to Section 3.8),
- The high number of truck trips occurring under existing conditions along the primary truck route (including 1st Street), and
- The recorded Lmax and Leq (ambient) noise levels along the primary truck route when compared to the levels presented in Table 3.7-5.

Therefore, mobile noise during both construction and operation of the Project will be in compliance with City of Irwindale Municipal Code Sections 9.28.030 and 9.28.040, and 9.28.140, City of Azusa Municipal Code Section 46-406, and the City of Azusa General Plan.

Contingency Truck Route. In addition to the cities of Irwindale and Azusa (analyzed above), the contingency route would also travel through or adjacent to the City of Baldwin Park. As discussed within Section 3.8 (Transportation) and required by proposed Mitigation Measure (MM) TR-1.1, use of the contingency route would only be allowed under specific conditions. The contingency route segments of Irwindale Avenue and Arrow Highway (refer to Figure 3.7-1) are designated truck routes (refer to Section 3.8).

For the same reasons identified above for use of the primary truck route, limited use of the contingency truck route would not increase average ambient noise conditions along Irwindale Avenue or 1st Street exceeding any of the conditions specified in Azusa Municipal Code Section 46-406 and applicable General Plan policies. Should the Project utilize the contingency truck route, it will be in compliance with these regulations and policies.

As identified in Table 3.7-3, commercial vehicle operations are exempt from the noise standards set forth in the Baldwin Park Municipal Code. The City of Baldwin Park General Plan specifies Arrow Highway as being a target 65 dB CNEL corridor. Ambient noise levels at the nearest residential receptors within Baldwin Park to the contingency truck route are represented in Table 3.7-2, locations 3 and 4.

Based on receptor distances to Arrow Highway and the expected attenuation of truck noise provided in Table 3.7-5, truck noise under contingency route use would be below recorded ambient Leq levels and well below recorded Lmax levels (intermittent noise similar to truck noise) at these locations. As discussed above, proposed MM TR-1.1 ensures use of the contingency route by Project trucks would only be allowed under specific conditions. The majority of these trucks would occur during the daytime hours and would not be subject to CNEL noise penalty. Under the specific conditions set forth in Mitigation Measure TR-1.1, should closures of Irwindale Avenue and/or 210 Freeway occur during the nighttime hours requiring use of the contingency truck route, additional truck traffic would occur along Arrow Highway during these hours from other industrial and commercial uses in the area also restricted from 210 Freeway access.

Furthermore, a nominal number of nighttime truck trips are expected during Project operations. Therefore, limited use of the contingency truck route is considered to be in compliance with the City of Baldwin Park General Plan.

Residual Impacts

Currently, all land uses immediately adjacent to the Project site and both primary and contingency truck routes are industrial/commercial. Additionally, noise from construction and operational-related truck trips is not expected to be greater than heavy trucks currently utilizing these designated truck routes (refer to Section 3.8). However, to ensure long-term truck noise compliance occurs, MM NOI-1.2 is proposed to ensure less than significant residual impacts (Class II).

Mitigation Measures

MM NOI-1.1: Construction Noise Mitigation

CleanTech shall only schedule indoor construction activities that would not exceed the property boundary noise level restrictions set forth in Irwindale Municipal Code Noise Ordinance Sections 9.28.030 and 9.28.040 between the hours of 10:00 p.m. and 7:00 a.m.

MM NOI-1.2: Truck Noise Mitigation

California Vehicle Code noise regulations pertaining to the operation of all commercial trucks on public roads shall be complied with. Truck noise will be periodically evaluated and continual enforcements of established routes shall occur.

MM TR-1.1: Traffic Control Plan

See Section 3.8.3 for full text.

Impact NOI-2: Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration velocity is most often described in terms of peak particle velocity (PPV) for purposes of groundborne vibration analysis. Typically, groundborne vibrations generated by man-made activities attenuate rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source (FTA 2006).

While on-site construction equipment use, operational loading/unloading activities, and heavy truck trips may produce short-term groundborne vibration, such vibration would only be of concern at any existing sensitive receptor structures located within 500 feet of the source. As discussed earlier, no sensitive receptors are located within 500 feet of the Project site or either of the primary or contingency truck routes (both are designated truck routes, refer to Section 3.8). Therefore, construction and operation of the proposed Project is considered to have less-than-significant groundborne vibration impacts (Class III).

Impact NOI-3: A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

As discussed within Impact NOI-1, operation of the proposed Project would not result in a substantial permanent increase in ambient noise levels either adjacent to the Project site or along either primary or contingency truck routes. With implementation of MM NOI-2, residual impacts would be less than significant (Class II).

Impact NOI-4: A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

As discussed within Impact NOI-1, construction of the proposed Project would not result in a substantial temporary or periodic increase in ambient noise levels either adjacent to the Project site or along construction-related truck routes (also the primary or contingency truck routes). Less than significant impacts would occur (Class III).

Impact NOI-5: Expose people residing or working in the project area to excessive noise levels from adjacent public airports or private airstrips.

The Project site is located approximately 4.1 miles east of El Monte Airport, which is the nearest public airport to the site. There is also a remote control (RC) plane airfield located approximately 1.2 miles west of the Project site at the southwest corner of the 605 and 210 freeway junction. Any aircraft noise from these facilities would be nominal at the site. The proposed Project does not include permanent residential housing or a significant amount of exterior work. No impacts would occur (Class IV).

3.8 Transportation

The transportation study area is defined as the freeway and local roadway network system immediately serving the proposed Project site, which includes segments of Interstate 210 (210 Freeway), Interstate 605 (605 Freeway), Irwindale Avenue, and Arrow Highway. As discussed in Section 2.3, the primary transportation route will be the 210 Freeway exiting onto Irwindale Avenue traveling south and turning right onto 1st Street, and then onto Martin Road to the Project site. An additional contingency route is analyzed for worst-case conditions, should the 210 Freeway or Irwindale Avenue (between 210 Freeway and 1st Street) be closed for any official reason. This contingency route would utilize Irwindale Avenue between 1st Street and Arrow Highway, then Arrow Highway west to the 605 Freeway. These study area roadway segments are depicted in Figure 3.8-1.

3.8.1 Existing Conditions

Study Area Roadways

Both the 210 and 605 Freeways are State highways managed by the California Department of Transportation (Caltrans). Irwindale Avenue and Arrow Highway are both 4- to 6-lane divided roads identified by the City of Irwindale as "major highway" and designated truck routes within its General Plan (City of Irwindale 2008). The City of Azusa also designates Irwindale Avenue and Arrow Highway as "principal arterial" and designated truck route within its General Plan (City of Azusa 2004).

Existing average daily traffic (ADT) volumes on study area roadways is used to document existing conditions. Utilizing ADT volumes, the Level of Service (LOS) concept is used as an indicator of operating conditions on a roadway or at an intersection. LOS is defined in categories ranging from A to F; where LOS A represents the best traffic flow conditions, and LOS F represents poor conditions. In other words, LOS A indicates free-flowing traffic, and LOS F indicates substantial congestion with stop-and-go traffic and long delays at intersections. Available project area ADT and LOS data are provided in Table 3.8-1.

TABLE 3.8-1. EXISTING STUDY AREA FREEWAY ADT AND LOCAL ROADWAY INTERSECTION LOS

	Annual ADT		LOS
Freeway ADT[1]	All Vehicles	Trucks	
210 Freeway (Irwindale Avenue)	247,000	--	F
605 Freeway (Arrow Highway)	147,000	--	D
210 Freeway at 605 Freeway Interchange	263,000	19,968	F
605 Freeway at 210 Freeway Interchange	147,000	10,128	D

Local Roadway Segments[2]	Capacity	ADT	LOS
Irwindale Avenue South of Foothill Boulevard	40,000	32,099	D
Irwindale Avenue North of Arrow Highway	40,000	28,656	C
Arrow Highway East of 605 Freeway	40,000	15,121	A

	2011 LOS	
Local Roadway Intersection LOS[3]	AM Peak Hour (8:00 a.m.-10:00 a.m.)	AM Peak Hour (8:00 a.m.-10:00 a.m.)
Irwindale Avenue and 1st Street	B	B
Irwindale Avenue and I-210 Eastbound On/Off Ramps	C	C
Irwindale Avenue and I-210 Westbound On/Off Ramps	A	A
Irwindale Avenue and Arrow Highway	F	F

-- Data Unavailable

Sources: [1] Caltrans 2012, and Metro 2010; [2] City of Irwindale 2008; [3] City of Azusa 2011. Waste Management Material Recovery Facility Transfer Station and Household Hazardous Waste Facility Draft EIR (dated March 2011), Table 5.3-10, existing with project conditions utilized to account for operation of Waste Management facility in baseline.

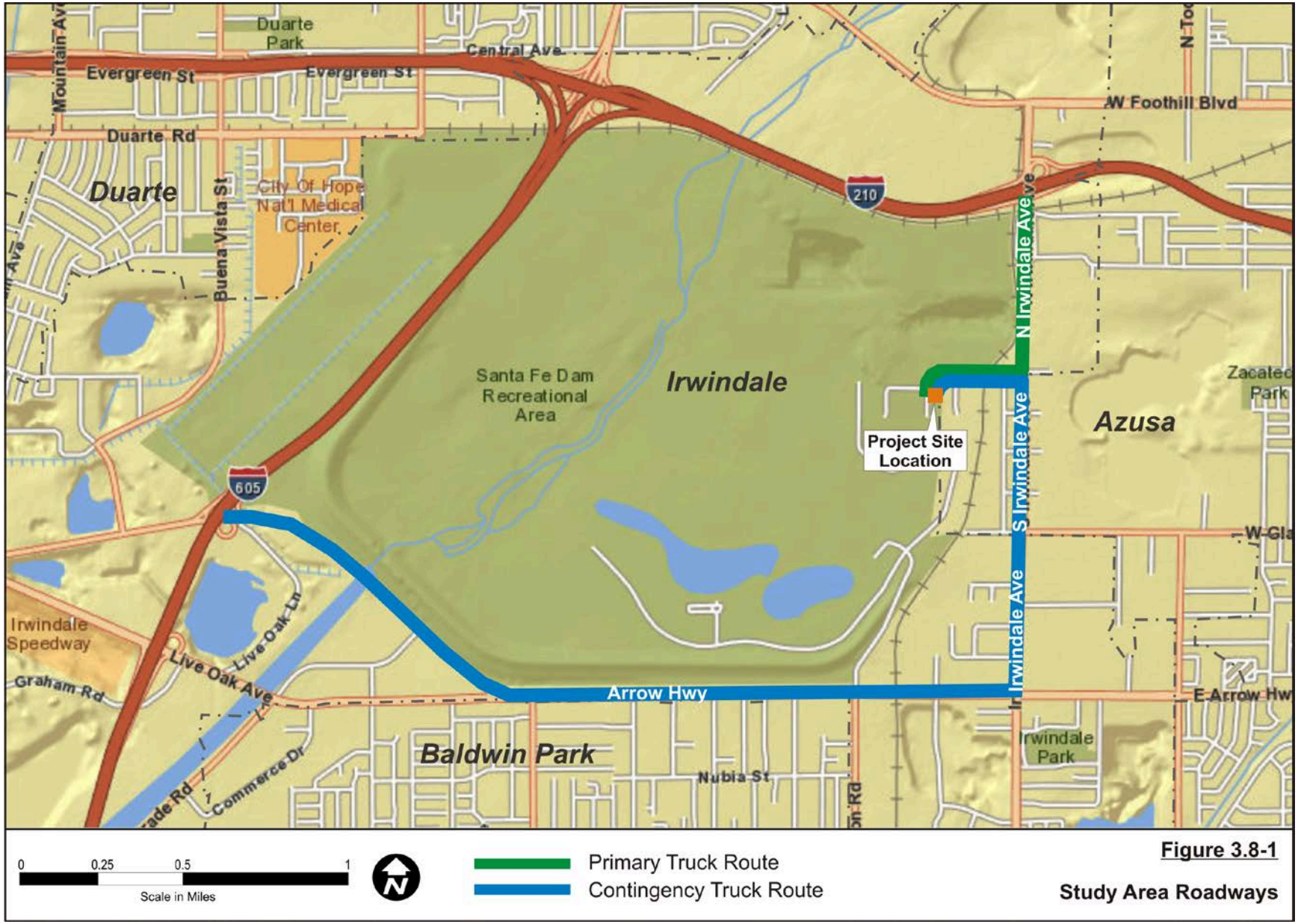


Figure 3.8-1

Study Area Roadways

Table 3.8-1 provides recently available data for existing ADT and LOS designations along study area freeway and roadway segments and local roadway intersections. It is important to note that daily trips from existing CleanTech operations are included in the baseline conditions presented in Table 3.8-1 for the study area.

Bicycle and Pedestrian Facilities

Both Irwindale Avenue and Arrow Highway do not contain dedicated bicycle lanes. Both streets contain sidewalk facilities along various spans of the study area, but are primarily for local business access. The cities of Irwindale or Azusa General Plans do not identify Irwindale Avenue or Arrow Highway as being designated bicycle routes (City of Irwindale 2008; City of Azusa 2004).

Transit Service and Rail

- Foothill Transit Line 492 – operates as a local east-west bus route that provides service between Montclair, Arcadia, and El Monte. The line provides service along Arrow Highway within the study area. This service operates at an approximate frequency of 30 minutes during weekday peak periods.
- Foothill Transit Line 690 – operates as an east-west service bus route that provides service between Montclair and Pasadena. The line provides service along I-210 within the study area. This service operates at an approximate trip frequency of 10 to 35 minutes during weekday peak periods.

Burlington Northern and Santa Fe (BN&SF) freight tracks are located on the west side of Irwindale Avenue, running north/south. These tracks cross 1st Street approximately 250 feet west of Irwindale Avenue. This at-grade crossing has both warning lights and gate arms for traffic in both directions.

Air Transportation

The Project site is located approximately 4.1 miles east of El Monte Airport, which is the nearest public airport to the site. There is also a remote control (RC) plane airfield located approximately 1.2 miles west of the Project site at the southwest corner of the 605 and 210 freeway junction.

3.8.2 Regulatory Framework

Federal

Title 49, Code of Federal Regulations (CFR), Subtitle B governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles. Any operations transporting hazardous materials would be required to comply with the regulations, including guidelines set forth by the Federal Motor Carrier Safety Administration for any vehicles transporting the types of materials defined as hazardous.

State

- California Vehicle Code (CVC), division 2, chapter 2.5; div. 6, chap. 7; div. 13, chap. 5; div. 14.1, chap. 1 & 2; div. 14.8; div. 15 (DMV 2014) - includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways; safe operation of vehicles; and the transportation of hazardous materials.

Caltrans

As stated in the Caltrans Guide for the Preparation of Traffic Impact Studies (TIS), the following criteria are a starting point in determining when a TIS is needed (Caltrans 2002):

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "C" or "D").
3. Generates 1 to 49 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing significant delay; unstable or forced traffic flow conditions (LOS "E" or "F").

As discussed below in Section 3.8.3, the proposed Project would not exceed these peak hour trip generation thresholds. The Project would generate 80 net daily trips (46 trucks and 34 passenger vehicles), which would be spread out during a 24-hour period and would not all occur on the 210 Freeway during either the a.m. or p.m. peak periods, when operating at LOS F. Because the Project would generate trips on this freeway during the peak periods when operating at LOS F, Caltrans notes that the appropriate level of study is determined by the particulars of a project, the prevailing highway conditions, and the forecasted traffic (Caltrans 2002). The following analysis provides details on net daily traffic volumes by vehicle type and trip distribution. Based on the relatively small number of net daily trips generated by the Project likely to occur on the 210 Freeway during either the a.m. or p.m. peak periods, less than 50 peak hour trips, a separate full TIS analysis was not prepared for the Project. The traffic impact analysis provided within this section is intended to fulfill Caltrans TIS guidance.

Local

The following outlines applicable plans and policies establishing measures of effectiveness for the performance of the study area circulation system:

- The City of Irwindale General Plan has established LOS D as a target LOS standard and LOS E as a threshold of the lower limit for acceptable operations on urban facilities (City of Irwindale 2008). The City recognizes that not all intersections within the City can meet the target LOS D. For individual roadway segments, a LOS C standard is used to monitor capacity needs.
- The City of Azusa General Plan Mobility Element specifies the following policy with respect to LOS performance standards of roadways:

— Policy 1.2 – Maintain Level of Service D on roadway segments and at signalized intersections throughout the City, except in the downtown area, the University District, and in the vicinity of freeway interchanges where Level of Service E shall be maintained in these areas (City of Azusa 2004).

Los Angeles County Metropolitan Transportation Authority (Metro)

As the Congestion Management Agency for Los Angeles County, Metro is responsible for implementing the Congestion Management Program (CMP) for the County. The CMP addresses the impact of local growth on the regional transportation system. Statutory elements of the CMP include Highway and Roadway System monitoring, multi-modal system performance analysis, the Transportation Demand Management Program, the Land Use Analysis Program, and local conformance for all the county's jurisdictions.

3.8.3 Project Impacts and Mitigation

Project Trip Generation

Construction. As described in Appendix A, for the worst-case day construction trips, which would occur on the concrete pour day during construction Phase 2A, would result in a total of 48 total daily trips; broken down as 20 daily heavy-duty truck haul trips, 8 work-truck trips (crew type or mid-size trucks), and 20 construction employee trips.

Operation. Table 3.8-2 provides the daily net trips generated by the proposed Project under maximum daily operations, which is used to analyze worst-case traffic impacts. Under existing conditions, CleanTech operations generate an average of 96 trips per day on the study area roadways; broken down as 56 daily heavy truck trips and 40 employee trips. As noted, these existing trips are already included under existing ADT levels presented in Table 3.8-1. Therefore, within Table 3.8-2, these existing trips are subtracted from proposed Project-related trips to show the net daily trip generation.

TABLE 3.8-2. PROJECT TRUCK TRIP NET GENERATION[1,2]

Activity	Daily Trips	
	Received	Loadout
Maximum Operations		
Trucks[2]	34	12
Workers (Passenger Vehicles)	34	
Total	80	

[1] Subtracts ADT occurring under existing CleanTech operations, which are accounted for in baseline roadway and intersection conditions presented in Table 3.8-1.
[2] For additional details of the daily truck trip accounting for baseline and worst-case post-project conditions, please see Appendix A.

Project Trip Distribution

As discussed in Section 2.3, the primary transportation route will be the 210 Freeway exiting onto Irwindale Avenue traveling south and turning right onto 1st Street, and then onto Martin Road to the Project site. It is feasible that during the life of the Project this study area route may be officially closed. Therefore, an additional contingency route is also analyzed. This route would utilize Irwindale Avenue between 1st Street and Arrow Highway, then Arrow Highway west to the 605 Freeway. These routes are depicted in Figure 3.8-1. Both the primary and contingency truck routes include roadways under Caltrans, City of Irwindale, and City of Azusa jurisdiction. The proposed Project would be considered to have a significant impact related to transportation if it were to:

TR-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

TR-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

TR-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

TR-4: Substantially increase hazards because of a design feature or incompatible uses.

TR-5: Result in inadequate emergency access.

TR-6: Conflict with adopted policies, plans, or programs supporting regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Project Impacts

Impact TR-1: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Construction. Construction would last approximately 6 to 7 months and generate 48 total daily trips, of which 20 would be daily heavy truck haul trips and 8 of which would be medium size/crew truck trips. When added to the ADT volumes of study area roadways presented in Table 3.8-1, this increase in daily trips would be a nominal increase (less than 0.5 percent) to the existing ADT volumes on either the primary or contingency study area roadways and intersections. Therefore, Project construction-related trips would not increase LOS levels over existing conditions.

However, because the primary truck route includes segments of the 210 Freeway currently operating at LOS F, Mitigation Measure (MM) TR-1.1 is proposed to reduce traffic on the 210 Freeway during the peak periods, as feasible. Furthermore, because the contingency route includes the intersection of Irwindale Avenue and Arrow Highway that operates at LOS F during the a.m. and p.m. peak periods, MM TR-1.1 is proposed to ensure construction trips do not utilize the contingency truck route during these peak periods. With the implementation of this measure, Project construction would result in-less-than significant impacts and would be consistent with applicable Caltrans and local General Plan plans and policies related to performance of study area roadways and intersections.

Mitigation Measures

MM TR-1.1: Traffic Control Plan

During construction and operation, all heavy truck trips shall only utilize the primary truck route (210 Freeway exiting onto Irwindale Avenue traveling south and turning right onto 1st Street and then onto Martin Road to the Project site). CleanTech shall work with truck operators to minimize deliveries and haul out between the hours of 8:00 am to 10:00 a.m. and 4:00 p.m. to 6:00 p.m. to the extent feasible. In the event the primary truck route is unavailable due to Caltrans, California Highway Patrol, City of Irwindale, or other official closure or detour, CleanTech shall ensure all heavy trucks utilize the contingency truck route (Irwindale Avenue between 1st Street and Arrow Highway, Arrow Highway between Irwindale Avenue and the 605 Freeway). CleanTech shall work with truck operators to minimize deliveries and haul out between the hours of 8:00 am to 10:00 a.m. and 4:00 p.m. to 6:00 p.m. to the extent feasible.

Operation. To analyze worst-case traffic impacts, net daily traffic volumes under maximum operations of the proposed Project are utilized, as presented in Table 3.8-2. As shown, the Project would only generate a net increase of 80 daily trips (46 truck and 34 passenger vehicle). As discussed in Section 2.5, the facility would operate 24 hours per day, 6 days per week, 52 weeks per year, with truck trips limited to 5 days per week (Monday through Friday). Therefore, daily trips would be spread throughout a 24-hour day and would not all be concentrated during either the a.m. or p.m. peak periods.

When net daily traffic volumes, particularly truck traffic, are added to existing ADT volumes of primary truck route roadways presented in Table 3.8-1, a nominal increase (less than 0.5 percent) would occur on any highway or local roadway segment utilized under operational use of the primary or contingency truck routes. Therefore, Project-related net operational trips would not increase LOS levels over existing conditions. However, MM TR-1.1 is proposed to ensure operational trips using the primary truck route

do not increase impacts on the 210 Freeway (operating at LOS F during the a.m. and p.m. peak periods). Furthermore, MM TR-1.1 ensures that use of the contingency truck route does not impact the intersection of Irwindale Avenue and Arrow Highway (operating at LOS F during the a.m. and p.m. peak periods).

With the incorporation of MM TR-1.1, Project operation would result in less than significant impacts and would be consistent with applicable Caltrans and local General Plan plans and policies related to performance of study area roadways and intersections (Class II).

Impact TR-2: Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Both the 210 and 605 Freeways are part of the CMP system. Within the CMP, LOS thresholds can be set no lower than LOS E, or the current level if worse than E. As shown in Table 3.8-1, the 210 Freeway operates at LOS F while the 605 Freeway operates at LOS D. As discussed in Impact TR-1, construction and operation of the proposed Project would not impact existing LOS or significantly increase ADT volumes on these freeways over existing conditions. With the implementation of MM TR-1.1, less-than-significant impacts would occur and the Project is found consistent with the 2010 Los Angeles County CMP (Class II).

Impact TR-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

The proposed Project would not introduce any new structures, vertical features, or plumes that could result in aviation hazards. No impact would occur (Class IV).

Impact TR-4: Substantially increase hazards because of a design feature or incompatible uses.

The proposed Project does not include any roadway or access improvements. Construction and operational traffic will cross BN&SF freight tracks on 1st Street when accessing the Project site. The centerline of the tracks crossing is located approximately 250 feet west of Irwindale Avenue. The 1st Street at-grade crossing has both warning lights and gate arms for traffic in both directions. 1st Street has a relatively straight horizontal alignment at the crossing with good visibility looking in all directions.

Field observations showed significant heavy truck traffic crossing these tracks under existing conditions on 1st Street from industrial and commercial uses within the Project site area. All truck operators under Project construction and operations must adhere to California Vehicle Code regulations pertaining to licensing, size, weight, and load of vehicles operated on highways; safe operation of vehicles; and the transport of hazardous materials. Therefore, the proposed Project would not increase hazards due to design features or incompatible uses. Less-than-significant impacts would occur (Class III).

Impact TR-5: Result in inadequate emergency access.

The proposed Project would not require any roadway or lane closures/disruptions either during construction or operation that could restrict or impede emergency access. No impact would occur (Class IV).

Impact TR-6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The proposed Project would not require any roadway or lane closures/disruptions either during construction or operation that could restrict or impede public transportation, bicycles, or pedestrians.

As discussed in Impact TR-1, the nominal increase in ADT on study area roadways during both construction and operation of the proposed Project would not impact existing Foothill Transit operations. Furthermore, the cities of Irwindale or Azusa General Plans do not identify Irwindale Avenue or Arrow Highway as being designated bicycle routes (City of Irwindale 2008; City of Azusa 2004). No impacts would occur (Class IV).

4. Cumulative Impacts

Section 4 presents the cumulative scenario used to determine the cumulative impacts associated with the proposed Project. To document the process used to determine cumulative impacts, this section provides the CEQA requirements, the methodology used in the cumulative assessment, and the projects identified and applicable to the cumulative analysis. The analysis of cumulative impacts is presented by issue area in Section 4.4, below.

4.1 CEQA Requirements

Title 14, Chapter 3 of the California Code of Regulations (CCR) includes the CEQA Guidelines, which state "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the environmental impact report ("EIR") together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR." An EIR must discuss cumulative impacts if the incremental effect of a project, combined with the effects of other projects is "cumulatively considerable." Such incremental effects are to be "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." Together, these projects comprise the cumulative scenario, which forms the basis of the cumulative impact analysis. (14 CCR §15130)

Cumulative impacts analysis should highlight past actions that are closely related either in time or location to the project being considered, catalogue past projects and discuss how they have harmed the environment, and discuss past actions even if they were undertaken by another agency or another person. Both the severity of impacts and the likelihood of their occurrence are to be reflected in the discussion, "but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion of cumulative impacts shall be guided by standards of practicality and reasonableness, and shall focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact" (14 CCR §15130).

The analysis must be in sufficient detail to be useful to the decision maker in deciding whether, or how, to alter the program to lessen cumulative impacts. Most of the projects listed in the cumulative projects table (Table 4-1) have, are, or will be required to undergo their own independent environmental review under CEQA. Significant adverse impacts of the cumulative projects would be required to be reduced, avoided, or minimized through the application and implementation of mitigation measures (MMs). The net effect of these MMs is assumed to be a general lessening of the potential for a contribution to cumulative impacts.

There are two commonly used approaches, or methodologies, for establishing the cumulative impact setting or scenario. One approach is to use a "list of past, present, and probable future projects producing related or cumulative impacts." The other is to use a "summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact." (14 CCR §15130)

This EIR uses the list approach to provide a tangible understanding and context for analyzing the potential cumulative effects of a project. General plans and other planning documents were used as additional reference points in establishing the cumulative scenario for the analysis.

4.2 Cumulative Impact Analysis Methodology

The area within which a cumulative effect can occur varies by resource. For example, air quality impacts tend to disperse over a large area, while traffic impacts are typically more localized. For this reason, the geographic scope for the analysis of cumulative impacts must be identified for each resource area.

The analysis of cumulative effects considers a number of variables including geographic (spatial) limits, time (temporal) limits, and the characteristics of the resource being evaluated. The geographic scope of each analysis is based on the topography surrounding the proposed Project and the natural boundaries of the resource affected, rather than jurisdictional boundaries. The geographic scope of cumulative effects will often extend beyond the scope of the direct effects, but not beyond the scope of the direct and indirect effects of the proposed Project.

In addition, each project (see Table 4-1), has its own implementation schedule, which may or may not coincide or overlap with the proposed Project's schedule. This is a consideration for short-term impacts from the proposed Project. However, to be conservative, the cumulative analysis assumes that all projects in the cumulative scenario are built and operating during the operating lifetime of the proposed Project.

4.3 Projects Considered in the Cumulative Impact Analysis

For preparation of the cumulative projects list, the City of Irwindale and SFDRA were contacted for a current list of projects within a one-mile radius of the proposed Project site. In addition, a complete search of CEQAnet Database was conducted for projects that are currently undergoing an environmental review process. Based on this research, the projects within the one-mile radius are described in Table 4-1.

The City of Irwindale included the Kare Youth League's Kare Park in their list of current projects. The proposed park will seasonally include five baseball fields, three football/soccer fields, five basketball courts, and an office/clubroom facility (KYL 2014). Construction is expected to occur over a 10-year period (City of Irwindale 2014). The site of the future park is located approximately two miles west of the proposed Project site. Because the park would be a sensitive land use, the park has been considered for inclusion in the cumulative projects list; however, due to the distance from the proposed Project site and the scope of the proposed Project, the park has not been included in the cumulative projects list.

The City of Irwindale also included the Materials Recovery Facility and Transfer Station (MRF/TS) in their list of current projects. Approval of this project would allow construction of a 246,022-square foot MRF/TS with a permitted maximum capacity to process 6,000 tons per day of municipal solid waste, green waste, construction and demolition materials, and waste hauled by self-haulers. However, as this project is located approximately 1.7 miles southwest of the proposed Project site, it has not been included in the cumulative projects list.

The City of Azusa (Azusa) is within the one-mile radius of the proposed Project. Azusa provides a "Permit Listing Report" on their website (City of Azusa 2014). This list consists of the permits issued for various activities such as upgrades to existing residences (additions, electrical, plumbing, etc.), occupancy inspections, remodeling plans, new homes, and signs. Several new single-family dwellings have been permitted within Azusa, but they are not located within the one-mile radius. Projects that consist of minor alterations to existing structures are not included in the cumulative project list. Therefore, none of the projects from Azusa's Permit Listing Report are listed in Table 4-1.

TABLE 4-1. CUMULATIVE PROJECTS WITHIN ONE MILE OF PROPOSED PROJECT

Project Name	Project Type	Project Description/Size	Project Location	Project Status/ Schedule
Metro Gold Line Foothill Extension (Metro 2014)	Mass transit	The Gold Line Foothill Extension will extend from Pasadena to Ontario	Parallels the south side of the 605 Freeway in Irwindale and Azusa; approximately 0.5 mile north of the proposed Project site	Under construction, to be completed in 2015
Irwindale Infill Housing Project (Irwindale 2014)	Multifamily residential	Two housing units on one parcel	15808 Hidalgo St., Irwindale; approximately one mile south of the proposed Project site	Construction expected to begin in Summer 2014
Waste Management Material Recovery Facility and Transfer Station (CalRecycle 2013)	Industrial	Construction of a Materials Recovery Facility/Transfer Station, a bale storage building, a scale house, and a Household Hazardous Waste Facility (HHWF) at the existing Waste Management Azusa Land Reclamation landfill in the City of Azusa	1501 Gladstone Street, Azusa; approximately 0.50 mile southeast of the proposed Project site	EIR Certified in July 2011; currently under construction
Veolia ES Technical Solutions, LLC	Industrial	The issuance of a new permit authorizing the continued treatment, storage, and transfer of off-site generated hazardous waste at the existing facility with an increase in the Facility's overall storage capacity from the current 768,550 gallons to 1,054,565 gallons, an increase of or 37%.	1704 West First Street, Azusa; approximately 0.15 mile east of the proposed Project site	DTSC permit issued in February 2011

4.4 Cumulative Impact Analysis

The cumulative impacts analysis discussion includes a more focused impact statement based discussion for the three resource areas with the greatest potential for cumulative impacts (air quality, noise, and transportation) and less specific discussions for the other resource areas.

4.4.1 Air Quality and Climate Change

Air Quality

The air quality impact analysis considers cumulative impacts in respect to the existing ambient air quality conditions. The significance criteria developed by SCAQMD reflect the existing ambient conditions and air quality planning efforts for the air basin, and reflect the SCAQMD's determination of what constitutes a substantial contribution to existing impacts. Therefore, the air quality impacts analysis provided in Section 3.2, to a large extent, is a cumulative impacts analysis.

Impact AQ-1: The Project would not conflict with or obstruct implementation of the applicable air quality plan. This impact is project specific and has no potential for cumulative impacts. Therefore, there are no cumulative impacts related to conformance with applicable air quality plans.

Impact AQ-2: The Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation. The proposed Project's air pollutant emissions were determined to be well below the magnitude needed to contribute substantially to an existing or projected air quality standard violation. Therefore, cumulative impacts would be less than significant. Also, please see the regional emissions cumulative impacts discussion provided below under Impact AQ-3.

Impact AQ-3: The Project would result in 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors). Pollutant emission calculations related to the proposed Project's construction and operation activities were determined to be less than significant. The SCAQMD thresholds used for significance determination are project-specific thresholds and they have not developed separate cumulative emissions thresholds. However, the SCAQMD regional thresholds are often applied to assess cumulative impacts by considering the on-site emissions from nearby projects (typically a one-mile radius). The cumulative projects listed in Table 4-3, other than the Metro Gold line project, are similar to the proposed Project in the fact that their operating emissions are primarily due to transportation emissions and they do not have high levels of unmitigated on-site emissions during operation that would cause a cumulative increase in emissions above the SCAQMD thresholds. The cumulative projects, other than the Metro Gold Line project, would complete construction before the proposed Project begins construction. The Metro Gold Line project would have the potential for high temporary construction emissions while constructing near the Project site, but that construction effort would have the potential to only briefly overlap with the proposed Project's construction activities, and the proposed Project's estimated maximum daily construction emissions are very low in comparison with the SCAQMD emissions significance thresholds (see Table 3.2-7). Therefore, the proposed Project's construction emissions would not considerably contribute to cumulative construction emissions, so cumulative construction emissions impacts would be less than significant.

As noted in the Alternatives Analysis (Section 5) and the Air Quality Section (Section 3.2), the Project fulfills a need that must be met and currently California does not have the capacity to recycle all of the used oil generated within the State, and part of the used oil generated within the state is currently shipped out of State for treatment or disposal. A specific comparison of transportation distances for waste oil that would occur with and without the Project cannot be reasonably determined; however, the Project may actually reduce the transportation distances that would otherwise be required, and therefore have a net reduction in criteria pollutants within the air basin. Additionally, the Project would have beneficial impacts related to material recycling that will cause additional emission reductions; however, the amount of those emissions reductions that would occur within the air basin cannot be determined. The other cumulative projects listed in Table 4-1, with the exception of the small residential development project, may similarly contribute to air basin emissions reductions. The Metro Gold Line project should create a significant reduction in regional transportation emissions. The Waste Management and Veolia projects may have the potential to reduce transportation emissions within the air basin and cause other emissions reduction related to the beneficial impacts from recycling in a manner similar to the proposed Project. In summary, the project's emissions at and near the project site are low in comparison with the regional emissions significance threshold and would not considerably contribute, along with the operation emissions of the other projects listed in Table 4-1, to cumulatively significant operation emissions; cumulative operation emissions impacts would be less than significant.

Impact AQ-4: The Project would expose sensitive receptors to substantial pollutant concentrations. SCAQMD LSTs and TAC significance thresholds are project-specific impact analyses that identify if a project would have the potential to expose sensitive receptors to substantial pollutant concentrations

considering the existing background cumulative air quality conditions. The project's LST and TAC impacts were found to be less than significant, so they will not cumulatively contribute to impacts to sensitive receptors. Cumulative impacts would be less than significant.

Impact AQ-5: The Project would create objectionable odors affecting a substantial number of people. The construction and operation of the facility do not include the use of odorous substances or activities that could cause significant odors or cumulatively contribute to objectionable odors. No cumulative impact would occur.

Climate Change

Climate change is a global cumulative impact, so the climate change analysis presented in Section 3.2 is a cumulative impact analysis for the proposed Project's greenhouse gas (GHG) emissions. Therefore, that section serves as the cumulative impacts analysis for Climate Change, where impacts were found to be less than significant after mitigation.

4.4.2 Biological Resources

The Project site is in an industrial area located near natural habitat that supports native plants and wildlife, including special-status species. See Biological Resources (Section 3.3) for a detailed description.

The Project would not result in significant impacts to native plants, wildlife, or jurisdictional wetlands and waters during construction and operation (see Section 3.3.3). However, other proposed projects near the Project site may impact local biological resources (See Table 4-1).

Cumulative impacts to biological resources and jurisdictional wetlands and waters could include disruption from lighting, noise, air quality, spread of invasive weeds, and stormwater runoff, as well as direct impacts to plants and wildlife. Potentially significant effects of each project listed in Table 4-1 will be analyzed and, if appropriate and feasible, significant impacts will be mitigated to less than significant levels (City of Irwindale 2009, DTSC 2010, Metro 2013).

The cumulative effects of past development (e.g., land use changes, water use, habitat degradation, and human disturbance) and the current and foreseeable future projects listed in Table 4.1 have significantly affected biological resources in the region. However, the proposed Project would not increase impacts to biological resources (vegetation, special-status plants, common wildlife, nesting birds, special-status wildlife, and wildlife movement), or jurisdictional wetland resources over baseline conditions (see Section 3.3.3). Therefore, the Project would not have a considerable contribution to cumulative impacts to biological and jurisdictional wetland resources.

4.4.3 Cultural and Paleontological Resources

The cumulative effects of past development (e.g., mining, commercial and residential development, groundwater recharge projects, and other human disturbance) and the current and foreseeable future projects listed in Table 4-1 have had the potential to have significantly affected cultural and paleontological resources in the region. However, research indicates that the Project site has a very low potential for cultural resources and essentially no potential for paleontological resources. Additionally, the proposed Project, with the implementation of MMs CUL-2.1, CUL 2.2, and CUL-3.1 during the Project's limited construction excavation activities, would have negligible impacts to cultural resources (see Section 3.4.3). Therefore, the Project would not have a considerable contribution to cumulative impacts to cultural and paleontological resources.

4.4.4 Hazards and Hazardous Materials

The geographic scope of the cumulative effects analysis for Hazards and Hazardous Materials is limited to the Project site and the routes used by trucks transporting materials to and from the Project site. The transportation of and presence of hazardous waste at the proposed Project site is a potential hazard. People and property could be exposed to risks resulting from the proposed Project during operation. No significant hazardous materials are expected to be used or disposed of during construction. Therefore, hazards risks resulting from construction of the proposed Project are not expected.

As discussed in Impact 3.4-1 (Section 3.4, Hazards and Hazardous Materials), if the proposed Project is approved and permitted, CleanTech would collect used oil, waste antifreeze, non-RCRA wastewater, and oily solid waste from off-site generators (gas stations, oil changers, auto repair shops, etc.) using trucks and consolidate the used oil, waste antifreeze, and non-RCRA wastewater in stationary tanks that would be constructed within the existing building at the proposed Project site. All processing areas would be operated within a concrete epoxy-coated and Visqueen-lined 8-inch-thick double crisscrossed steel rebar reinforced concreted floor containment area. All shipping and receiving areas would be operated and contained within a diked and/or bermed concrete, epoxy-coated containment area (please see Figure 2-4). Any potential accidents resulting from a hazardous material spill or leak at the proposed Project site would be localized and not expected to result in a cumulatively considerable impact.

Operation of the proposed Project could result in a cumulatively significant impact to the public if a hazardous material spill or leak were to occur during transport of hazardous waste to the proposed Project site. The proposed Project would implement MM HAZ-1.1 and MM TR-1.1 to reduce impacts of a hazardous material spills or leaks during transport of hazardous waste to and from the proposed Project site. Proper response and cleanup procedures would be implemented to reduce any potential hazards to the surrounding environment. With the implementation of MM HAZ-1.1 and MM TR-1.1, any potential impacts would be localized and not expected to result in a cumulatively considerable impact.

4.4.5 Hydrology and Water Quality

The geographic scope of the cumulative effects analysis for Hydrology and Water Quality is limited to the Project site and the routes used by trucks transporting materials to and from the Project site. This is an appropriate area of analysis because, as described in Section 3.6, hydrology and water quality impacts associated with the proposed Project would be site-specific and of short duration. Should an accidental spill of hazardous materials occur during Project construction or operation, BMPs would be implemented to ensure that surface water or groundwater quality would not be degraded. Sufficient water supply is available in the area to meet the Project's water supply requirements. The proposed Project would not substantially alter existing drainage patterns or introduce hazards associated with flooding or FEMA-designated Flood Hazard Areas. Therefore, the proposed Project would not introduce impacts to hydrology and water quality that would have the potential to combine with similar impacts of other projects within the same geographic and temporal scope as the proposed Project. No cumulative impacts to hydrology and water quality would occur.

4.4.6 Noise

The area of analysis with respect to cumulative noise impacts is the proposed Project site and immediate vicinity, as well as the primary and contingency truck routes and immediate vicinity. As discussed in Section 3.7(Noise), these areas do not contain any sensitive receptors, with the nearest sensitive receptors located approximately 800 to 1,000 feet south of Arrow Highway.

Impact NOI-1: Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Each cumulative project would also be required to show compliance with applicable noise performance standards by the jurisdiction approving them. As discussed in Section 3.7 (Noise), the proposed Project would be compliant with all applicable noise standards, ordinances, and policies. Therefore, while several of the cumulative projects, particularly the Waste Management and Veolia projects, would introduce additional truck noise on the primary and contingency routes, no sensitive receptors are located along these routes and both Irwindale Avenue and Arrow Highway are designated truck routes by the cities of Irwindale and Azusa (refer to Section 3.8, Transportation). Therefore, the proposed Project would result in less-than-significant cumulative noise impacts with respect to violating established plans and policies.

Impact NOI-2: Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Vibration is localized and is not expected to extend beyond 500 feet of the source. Therefore, potential cumulative vibration impacts would be limited to the primary and contingency truck routes. Identical to that described above for Impact NOI-1, the Waste Management and Veolia projects would introduce additional heavy truck trips on the primary and contingency routes. However, no sensitive receptors are located along these routes and both Irwindale Avenue and Arrow Highway are designated truck routes by the cities of Irwindale and Azusa. Therefore, the proposed Project would result in less-than-significant cumulative vibration impacts.

Impact NOI-3: A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. It is unlikely that on-site noise from proposed Project operations would combine with operational noise of the Veolia project to create significant noise levels; first, because the outdoor operation noise sources from the proposed Project are both occasional and minimal; second, because of the distance between the two sites, where noise levels decrease rapidly with distance; and finally because there are one or two solid walls acting as noise barriers between these two cumulative noise sources. Additionally, no sensitive receptors are located between the two sites. While the Waste Management and Veolia projects would cumulatively introduce additional truck noise on the primary and contingency routes, no sensitive receptors are located along these routes and both Irwindale Avenue and Arrow Highway are designated truck routes by the cities of Irwindale and Azusa. Additional cumulative truck trip noise levels would also not be greater than those occurring under existing conditions. Therefore, while cumulative truck trips would increase, the proposed Project would only contribute 46 new heavy truck trips per day. Overall, ambient noise levels along the primary and contingency truck routes are not expected to substantially increase, resulting in less-than-significant cumulative noise impacts with respect to a permanent increase in ambient noise levels.

Impact NOI-4: A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. It is unlikely that on-site noise from proposed Project construction would combine with operational noise of the Veolia project. Additionally, no sensitive receptors are located between the two sites. The potential for construction-related mobile noise is identical to that described above in Impact NOI-3 for operational truck traffic. Therefore, the proposed Project would result in less than significant cumulative noise impacts with respect to a temporary increase in ambient noise levels.

Impact NOI-5: Expose people residing or working in the project area to excessive noise levels from adjacent public airports or private airstrips. The Project site is not located within proximity to a public airport or private airstrip. The Project would not cumulatively increase persons residing or working adjacent to a public airport. No cumulative impacts would occur.

4.4.7 Transportation and Circulation

The areas of analysis with respect to cumulative transportation impacts are the adjacent segments of the 210 and 605 Freeways and both the primary and contingency truck routes (which include Irwindale Avenue Arrow Highway).

Impact TR-1: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit). With respect to traffic, only the Waste Management and Veolia projects are of concern cumulatively. As noted in Table 3.8-1, the Waste Management project has been included in baseline conditions for the transportation analysis. Therefore, this project is cumulatively considered in the proposed Project transportation analysis. Furthermore, as noted in Table 4-1, the Veolia project was permitted in 2011. Therefore, traffic from this project is assumed accounted for within the freeway segment baseline volumes presented in Table 3.8-1 and also considered at this level within the proposed Project analysis.

While continued growth of the area will result in continued cumulative impact to the 210 Freeway (which operates at LOS F during the peak periods), the Project is not considered to have a cumulatively considerable impact due to the small amount of net new daily trips (less than 0.2 percent) of the ADT of this freeway. Furthermore, per the restrictions identified in MM TR-1.1, the proposed Project would only utilize the intersection of Irwindale Avenue and Arrow Highway (which operates at LOS F during the peak periods) under limited specific circumstances and would not cumulatively impact traffic volumes along the contingency route. Therefore, while the cumulative study area includes locations operating at LOS F during the peak hours, the proposed Project is considered to have a less than significant impact with respect to cumulatively contributing to continued operation of these outside of acceptable levels identified by Caltrans and City of Azusa.

Impact TR-2: Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. As discussed above under Impact TR-1, the Project would result in a nominal number of net daily trips (less than 0.2 percent) to the 210 Freeway. Therefore, the proposed Project is considered to have a less than significant impact with respect to cumulatively contributing to continued operation of the 210 Freeway (which operates at LOS F during the peak periods) outside of acceptable levels identified by the applicable CMP.

Impact TR-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. The Project would not cumulatively introduce any structures or features that could cumulatively impact air navigation. No cumulative impacts would occur.

Impact TR-4: Substantially increase hazards because of a design feature or incompatible uses. The proposed Project does not include any roadway improvements or new uses that could cumulatively contribute to roadway hazard impacts. No cumulative impact would occur.

Impact TR-5: Result in inadequate emergency access. The proposed Project would not require any roadway or lane closures/disruptions either during construction or operation that could cumulatively contribute to restricted emergency access. No cumulative impact would occur.

Impact TR-6: Conflict with adopted policies, plans, or programs supporting regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The proposed Project would not include use of any roadway that includes dedicated bicycle lanes and would not impact any public transportation facilities. No cumulative impact would occur.

4.4.8 Effects Found Not to be Significant

The resource areas with cumulative effects found not to be significant include:

- Aesthetics;
- Agricultural Resources;
- Geology and Soils;
- Land Use and Planning;
- Mineral Resources;
- Population and Housing;
- Public Services;
- Recreation;
- Utilities and Service Systems.

The Project would have negligible or no impacts on all of these resource areas. Therefore, the proposed Project would not have a considerable contribution to cumulative impacts for these resource areas.

4.5 Summary

All of the proposed Project's impacts, after mitigation, have been found to be less than significant, and those impacts considering other past, recent, and proposed projects surrounding the Project site area would not have the potential to considerably contribute to cumulative impacts. Therefore, the proposed Project's cumulative impacts are less than significant.

5. Alternatives Analysis

This section describes the California Environmental Quality Act (CEQA) requirements related to alternatives (Section 5.1) and the alternatives that were considered but not carried forward as a feasible alternative to the proposed Project (Section 5.2). It then describes the two alternatives to the proposed Project (Section 5.3), in addition to the No Project Alternative, and presents impact analysis by discipline for each of these alternatives. Section 5.4 presents the environmentally superior alternative, as required by CEQA.

All of the alternatives evaluated in this section have been developed to meet the principal objectives of the proposed Project, as summarized in Section 5.1.1 (Consistency with Project Objectives). Therefore, these alternatives represent potential replacements to the proposed Project. The on-site alternatives evaluated in Section 5.3 include a reduced project alternative and the no project alternative. The first of these two alternatives has been selected for evaluation due to its ability to partially meet the proposed Project's primary objectives while potentially reducing some adverse environmental impacts.

5.1 Introduction

An important aspect of Environmental Impact Report (EIR) preparation is the identification and assessment of reasonable alternatives that have the potential to avoid or minimize the impacts of a proposed project. The State CEQA Guidelines require consideration of the No Project Alternative (Section 15126.6[e]) and selection of a range of reasonable alternatives (Section 15126.6[d]). The EIR must adequately assess these alternatives to allow for a comparative analysis for consideration by decision makers. The State CEQA Guidelines (Section 15126.6[a]) require that:

> *An EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.*

As a frame of reference, summaries of the proposed Project's objectives, CEQA's definition of "feasibility," and the significant environmental effects that would occur due to implementation of the proposed Project are provided in the following sections.

5.1.1 Consistency with Project Objectives

As referenced above, State CEQA Guidelines Section 15126.6(a) requires consideration of “a range of reasonable alternatives” to a project, or to the location of a project, that could accomplish “most of the basic objectives of the project.” As set forth in Section 2.1 (Project Overview and Objectives), the applicant has identified the following basic objectives for the proposed Project:

- Enable CleanTech to collect, test, treat, certify, and transport as much as 1,500,000 gallons per month of used oil as certified recycled oil that can be further treated locally as necessary to efficiently serve a diverse client base, including clients at the Ports of Long Beach/Los Angeles, recycled base oil market in Azusa, and remote boiler/fuel burners in Nevada and Arizona (such as cement kilns and asphalt plants) and
- Enable CleanTech to collect, bulk, and transport waste antifreeze, oily wastewater, and other oily solid wastes to meet customer needs.

In addition, the proposed Project meets the following public objectives:

- To allow the reuse of used motor oil, a recyclable waste stream created from a nonrenewable resource, which would:
  - Reduce the need for the production of new fossil fuels,
  - Reduce the associated air pollution emissions related to new fossil fuel production or other forms of used oil disposal,
  - Reduce the greenhouse gas emissions/carbon footprint related to new fossil fuel production, oil refining, or related to other forms of used oil disposal, meeting the goals of Assembly Bill (AB) 32, and
  - Develop new green technology.

The determination of whether to eliminate or retain alternatives in this EIR was based on each alternative's ability to meet all of these objectives, keeping in mind the lead agency requirement to consider alternatives "capable of substantially reducing or eliminating any significant environmental effects, even if these alternatives substantially impede the attainment of the project objectives, and are more costly."

5.1.2 Feasibility

The State CEQA Guidelines (Section 15364) define feasibility as:

> *. . . capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.*

The alternatives screening analysis is largely governed by what CEQA terms the "rule of reason," meaning that the analysis should remain focused, not on every possible eventuality, but rather on the alternatives necessary to permit a reasoned choice. Furthermore, of the alternatives identified, an EIR is expected to fully analyze those alternatives that are potentially feasible, while still meeting most of project's objectives.

According to the State CEQA Guidelines (Section 15126.6[f][1]), among the factors that may be taken into account when addressing the potential feasibility of alternatives include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or other regulatory limitations, jurisdictional boundaries, and a proponent's control over alternative sites in determining the range of alternatives to be evaluated in the EIR. For the screening analysis, the feasibility of potential alternatives was assessed taking the following factors into consideration:

- **Economic Viability.** Is the alternative so costly that implementation would be prohibitive? The State CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives or would be more costly" (Guidelines Section 16126.6[b]). The Court of Appeals added in Goleta Valley v. Board of Supervisors (2nd Dist. 1988, 197 Cal.App.3d, p. 1181 [see also Kings County Farm Bureau v. City of Hanford {5th Dist. 1990} 221 Cal.App.3d 692, 736 {270 Cal. Rptr. 650}]): "[t]he fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible. What is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with project."
- **Site Suitability.** Does the alternative have the potential to avoid lands that have legal protection that may prohibit or substantially limit the feasibility of permitting a hazardous waste facility project? Lands that are afforded legal protections that would prohibit the construction of the Project, or require an act of Congress for permitting, are considered less feasible locations for the Project. These land use designations include wilderness areas, wilderness study areas,

restricted military bases, airports and Native American reservations. Additionally, areas that do not have compatible zoning or necessary infrastructure would be unsuitable; and sites that could not be reasonably acquired for use would be unsuitable.

- **Regulatory Feasibility.** Do regulatory restrictions substantially limit the likelihood of successful permitting of a used oil recycling/hazardous waste treatment project? Is the alternative consistent with applicable standards for used oil recycling/hazardous waste treatment system design, operation and maintenance?
- **Social Feasibility.** Would the alternative cause significant damage to the socioeconomic structure of the community and be inconsistent with important community values and needs? Similar to the environmental feasibility, above, this subject is primarily considered as a significant environmental effect.
- **Technical Feasibility.** Is the alternative feasible from a technological perspective, considering available technology? Are there any construction, operation or maintenance constraints that cannot be overcome?

5.1.3 Potential to Eliminate Significant Environmental Effects

A key CEQA requirement for an alternative is that it must have the potential to "avoid or substantially lessen any of the significant effects of the project" (State CEQA Guidelines Section 16126.6[a]). If an alternative is identified that clearly does not have the potential to provide an overall environmental advantage as compared to a project, it is usually eliminated from further consideration. The proposed Project was not found to have any significant and unavoidable impacts. The proposed Project would have adverse, but less than significant impacts; therefore, the alternatives analysis focuses on whether a project alternative could substantially lessen those adverse impacts.

5.2 Alternatives Considered But Not Carried Forward

This section describes and evaluates the alternatives that did not meet the CEQA criteria defined in Section 5.1. The following list outlines the two types of alternatives that are addressed in this section, with an explanation as to why each alternative was eliminated.

5.2.1 Alternative Location Near the Project Site

The Project site is not very large, does not have any important specific features that would differentiate from other similar commercial/industrial properties, and the processes would not require extensive permitting or unusual zoning requirements beyond the hazardous waste facility permit and associated CEQA documentation requirements. Considering these factors, the proposed Project site location is not critical for the Project to go forward. The primary needs for the Project site location include: a parcel of sufficient size located within CleanTech's Southern California service area, appropriate commercial/industrial zoning, and adequate access route(s) for large trucks. There are a number of locations within Southern California that could meet these basic needs. Additionally, certain locations, such as a location near the Ports of Los Angeles/Long Beach would be closer to where most of the recycled oil would currently be shipped. A remote alternative project location would reduce localized adverse impacts, such as traffic impacts on the 210 Freeway. However, an alternative location that is near the proposed Project site would have similar impacts as the Project, and not cause a notable reduction in any of the impacts that have been determined for the Project. Therefore, an alternative site located near the Project site is not evaluated further.

5.2.2 Alternative Technology

Alternative technologies to used oil recycling would include combustion/incineration, land disposal, and other recycled oil certification processes/technologies.

Combustion/incineration is not considered a viable or desired technology unless the energy of combustion is used beneficially to make power or useful heat. The Project site may be large enough to add a combustion device (gas turbine, internal combustion engine, or boiler) that could beneficially obtain heat/power from the used oil. However, the waste as accepted is a California Hazardous Waste, which would have significant restriction placed on its use as a fuel. Benefits of this alternative technology would be the displacement of other fossil fuel use and a reduction in transportation requirements, as there would be little or no outgoing traffic. However, considering the current air quality permitting limitations within the air basin and emissions offsets availability, this technology is not considered feasible from a regulatory standpoint.

Land disposal is not considered a viable or desired alternative technology, and it is certainly not viable at the Project site.

The proposed Project certifies used oil, a designated hazardous waste, as recycled oil. The process used is very simple and will not create significant secondary impacts, such as the creation of large new waste streams, or cause a significant use of water or electricity. The adverse impacts determined for the proposed Project (traffic, noise, air quality) would not be affected by use of a different certification process/technology. Therefore, regardless of the question of whether there are any other technologies that could be used for recycled oil certification that would be substantially different than the proposed technology; there would be no reduction in impacts.

Therefore, alternative technologies are not considered viable or useful alternatives to the proposed Project.

5.3 Alternatives Carried Forward for Further Analysis

This section describes and evaluates the two project alternatives that were found to meet the CEQA criteria defined in Section 5.1.1 and thus were retained for the EIR's alternatives analysis. A description of those alternatives that did not meet CEQA's criteria for further evaluation is provided above in Section 5.2, with an explanation as to why alternatives were eliminated from further consideration. As required by CEQA Section 15126.6 (e), the "No Project Alternative" is discussed in Section 5.3.1 and the "Environmentally Superior Alternative" is addressed in Section 5.4.

In order to comply with CEQA’s requirements, the alternatives that were developed for this analysis have been evaluated in three ways:

- Does the alternative accomplish all or most of the basic objectives of the proposed Project?
- Is the alternative potentially feasible (from economic, environmental, legal, social, technological standpoints)?
- Does the alternative avoid or substantially lessen any significant effects of the proposed Project (including consideration of whether the alternative itself could create significant effects potentially greater than those of the proposed Project)?

The evaluation of these criteria is addressed below in Sections 5.3.1 through 5.3.3.

5.3.1 Alternative 1 - No Project Alternative

The requirements for the No Project Alternative analysis are defined under Section 15126.6 (e) of the Guidelines for Implementation of CEQA within the California Code of Regulations. Specific requirements relevant to this Project include:

- A No Project Alternative is required to be analyzed by all decision makers to compare approving and not approving the proposed Project. (Section 15126.6 (e)(1)).
- The No Project Alternative shall discuss the existing conditions at the time the notice of preparation is discussed. (Section 15126.6 (e)(2)).
- The discussion would compare the environmental effects of the property remaining in its existing state against the environmental effects that would occur if the Project is approved. The lead agency should proceed to analyze the impacts of the No Project Alternative by projecting what would occur in the reasonable future if the Project would not occur. (Section 15126.6 (e)(3)(B) and (C).

Under the No Project Alternative as defined for this Project, the Project site would not be developed for the purposes of certifying used oil as recycled oil but would be allowed to continue current operations. The proposed new tanks areas, spill control berms, and ramps and sumps would not be built. Therefore, there would be no direct incremental environmental impacts related to project construction or operation. However, the beneficial impacts related to the recycling of used oil would not occur. Additionally, the environmental effects of the existing oil filter crushing and recycled oil filtering operations would continue at the site. The Project applicant would be free to make other improvements to the site and increase the waste throughputs as desired for the existing processes, which could cause increases in transportation and air quality impacts at the site regardless of whether the Project is approved.

Additionally, under the No Project Alternative, the used oil that would otherwise be shipped to this site would have to be shipped elsewhere, perhaps out of state, for treatment or disposal. This is expected to increase the regional impacts, such as increasing total transportation distances and increasing regional air quality impacts.

5.3.2 Alternative 2 – Reduced Project

This alternative was the project proposed under the applicant's 2011 Hazardous Waste Facility Permit Application (CleanTech 2011).

Description

As with the proposed Project, Alternative 2 would involve the construction of a used oil recycling facility and other waste collection facility, which would be entirely constructed within the existing 0.98-acre CleanTech site. The major components of the proposed facility are described in more detail below and include the following:

- Two new, three total, truck unloading/loading bays and epoxy-coated Visqueen-lined steel rebar reinforced concrete sumps (same as the proposed Project);
- Bermed drum/bin storage area;
- Tank containment areas with epoxy-coated Visqueen-lined steel rebar reinforced concrete slabs (approximately one-third smaller footprint than for the proposed Project);
- Seven new, nine total, 20,000-gallon storage tanks and one new 10,000-gallon storage tank (93,000 gallons less of tank storage than constructed for the proposed Project); and
- Removal or relocation of the existing recycled oil filtering operation and oil filter crushing operation.

The rest of the process description is essentially identical as that provided for the proposed Project in Section 2. However, the reduced number of used oil treatment/blending tanks would reduce the maximum used oil/recycled oil throughput for the facility by approximately a factor of two.

Objectives

Alternative 2 would meet most of the basic Project and public objectives, as defined below.

- Enable CleanTech to collect, bulk, and transport waste antifreeze, oily wastewater, and other oily solid wastes to meet customer needs.
- Allow the reuse of used motor oil, a recyclable waste stream created from a nonrenewable resource, which would:
  - Reduce the need for the production of new fossil fuels.
  - Reduce the associated air pollution emissions related to new fossil fuel production or other forms of used oil disposal.
  - Reduce the greenhouse gas emissions/carbon footprint related to new fossil fuel production, oil refining, or related to other forms of used oil disposal, meeting the goals of Assembly Bill (AB) 32.
  - Develop new green technology.

However, this alternative would not be able to meet the Project objective of 1,500,000 gallons per month of recycled oil certification.

Feasibility

This alternative is considered feasible, as it represents only a decrease in volume in comparison to the proposed Project. There would be no change to technology or major changes to the construction or operation requirements for the Project site. However, this alternative would not be able to meet the desired throughput objective for recycled oil certification.

Impact Analysis by Discipline

The location of this alternative would be the same as the proposed Project, but the duration associated with its construction would be somewhat reduced from that of the proposed Project due to a smaller project footprint within the existing site. However, the maximum daily construction activity requirements would be nearly identical. This alternative's operation and maintenance requirements would be reduced due to the reduction in waste throughput; in particular, the truck traffic associated with waste transportation would be reduced proportionately with the reduction in maximum waste throughput as compared to the proposed Project. However, considering that the same types of activities would be conducted at the same location, at a regional level, the impacts associated with Alternative 2 would be virtually indistinguishable from the proposed Project for the following subject areas:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services, Utilities, and Service Systems
- Recreation
- Utilities and Service Systems
- Water Resources

The primary subject areas that differentiate this alternative from the proposed Project relate to air quality and climate change, noise, and transportation, as discussed below.

Air Quality and Climate Change

This alternative would reduce truck traffic by approximately a factor of two. Therefore, the air pollutant and greenhouse gas emissions associated with the Project's truck traffic would be reduced by the same amount. As noted in Section 3.2, the air pollutant and greenhouse gas emissions impacts associated with the Project are below South Coast Air Quality Management District significance thresholds; however, those emissions and resulting impacts would be even lower for Alternative 2. However, this project provides a needed service of collecting and treating used oil that is generated in California. Therefore, the regional air pollutant and greenhouse gas impacts could increase depending on where the used oil not transported to this project site is transported and how it is treated or disposed. Since this alternative would have similar construction requirements as the proposed Project, it is assumed it would require the same greenhouse gas emissions reduction mitigation measure as required for the proposed Project.

Noise

As addressed in Section 3.7, the proposed Project would require noisy construction activities and has a contingency truck route that could cause potentially significant impacts if noisy construction activities were to occur during overnight hours or if trucks were to need to use that route during rush hour or nighttime periods. The reduced project traffic would reduce the potentially adverse impacts from the use of this contingency truck route. Since this alternative would have the same project location and the same contingency truck route, it is assumed that it would require the same two noise mitigation measures required for the proposed Project.

Transportation

Alternative 2 would require fewer truck trips than the proposed Project. Assuming that other processes are not added or existing processes throughputs are not included at the site to maximum use of the available space at the site, which could then require a similar or greater increase in truck traffic, then this alternative would reduce the adverse impacts on the local area roads and the 210 Freeway in comparison with the proposed Project as described in Section 3.8. However, it is assumed that the same transportation mitigation measure that would be required for the proposed Project to reduce transportation impacts would also be required for this alternative.

Alternative Conclusions

Alternative 2 would reduce certain localized adverse impacts but may not reduce those impacts regionally given that the demand for recycling generated used oil will exist with or without the Project and that without the Project used oil would need to be shipped to another location that could cause localized impacts in other locations or greater regional impacts.

5.3.3 Alternative 3 – Alternate Project Location (Long Beach)

Description

As with the proposed Project, Alternative 3 would involve the construction of a used oil recycling facility and other waste collection facility, which would be constructed within a property in the Port of Long Beach area. The major components of the proposed facility are generally the same as for the proposed Project described in Section 2 with the following differences:

- The property would need to be large enough to allow parking of CleanTech's trucks that currently park at the nearby Veolia facility.
- Removal or relocation of the existing recycled oil filtering operation and oil filter crushing operation at the proposed Project site would not be required.

The rest of the process description is essentially identical as that provided for the proposed Project in Section 2. However, the project layout and organization would be designed to fit the actual property that would be used, and the construction requirements would be greater as the current infrastructure of the proposed Project site (two existing tanks and existing truck ramp and sump) would not exist at the alternate project location.

Regarding Project operations, the major difference between the proposed Project and this alternate project location would be the differences in transportation and related impacts (air quality/noise). The following provides several points of comparison between the proposed Project location and a Long Beach location and other considerations regarding a Long Beach location:

- The current mileage that accumulated each day for driving semi-tankers to Long Beach is approximately 35 miles one way or 70 miles round trip. Approximately 5 loads a day are shipped, which equates to 350 miles per day. A Long Beach alternate location would be only about 5 miles away from the Long Beach destinations, which would save approximately 300 miles per day in semi tankers delivering certified oil to the Port of Long Beach.
- Irwindale is the current location for CleanTech's operations and so is closer to CleanTech's existing customers than Long Beach. It is estimated that inbound pickup service and waste drum and waste antifreeze outbound mileage and drive times would increase by being in Long Beach as opposed to Irwindale. The increase in drive time would require approximately three extra bobtail trucks per day to pick up the same number of customers throughout Southern California. It is estimated that the total increase in daily truck mileage for all local inbound waste trips and local outbound trips, not including the recycled oil deliveries discussed above, would be approximately 400 miles per day.
- Inbound used oil tankers delivering to Veolia from Fresno is approximately two tankers per day that would need to go an extra 50 miles per load to deliver in Long Beach as opposed to Irwindale. This would require an additional 100 miles per day of delivery tanker travel.
- CleanTech's future goals are to develop a broader customer base over the next few years by re-refining the certified used motor oil into fuel for the industrial boiler market and base oil for the recycled base oil market. Potential customers would be located in Azusa, CA as well as Nevada and Arizona. The Irwindale location would be closer to these new potential customers than a Long Beach location. Using current driver miles it would equate to approximately 300 miles per day in savings from an Irwindale facility rather than a Long Beach facility. (CleanTech 2013/2014)

The sum of the differences in transportation for this alternative, before consideration of CleanTech's future customer base goals would be a slight increase in the total miles driven and the number of trucks on the road. Assuming CleanTech is able to expand its customer base for recycled oil products as desired, the comparative transportation requirements would be even greater for this alternative.

Objectives

Alternative 3 would meet most of the basic Project and public objectives, as defined below.

- Enable CleanTech to collect, test, treat, certify, and transport as much as 1,500,000 gallons per month of used oil as certified recycled oil.
- Enable CleanTech to collect, bulk, and transport waste antifreeze, oily wastewater, and other oily solid wastes to meet customer needs.
- Allow the reuse of used motor oil, a recyclable waste stream created from a nonrenewable resource, which would:
  - Reduce the need for the production of new fossil fuels.
  - Reduce the associated air pollution emissions related to new fossil fuel production or other forms of used oil disposal.

- Reduce the greenhouse gas emissions/carbon footprint related to new fossil fuel production, oil refining, or related to other forms of used oil disposal, meeting the goals of Assembly Bill (AB) 32.
- Develop new green technology.

However, this alternative would not allow the recycled oil to be further treated locally as necessary to efficiently serve a diverse client base, including; clients at the Ports of Long Beach/Los Angeles, recycled base oil market in Azusa, and remote boiler/fuel burners in Nevada and Arizona, or be as efficient for the daily waste pickup operations.

Feasibility

This alternative is considered feasible, as it represents only a movement of the project location within the Los Angeles metropolitan area. There would be no changes to technology or major changes to the construction or operation requirements for the Project site. However, there would be some additional construction requirements in comparison to the proposed Project site, which has some of the project elements already constructed, including one truck ramp and sump and two 20,000 gallon tanks. Other differences in daily operation that would occur due to the change in site location are described below.

Impact Analysis by Discipline

The size and operation throughput of this alternative would be the same as the proposed Project, but the location would be different and the extent and duration associated with its construction would be somewhat greater than that of the proposed Project due to less existing infrastructure that can be reused. However, the maximum daily construction activity requirements would likely be nearly identical. Additionally, a larger total project site footprint would be needed to allow truck parking that is currently done at Veolia. This alternative would remove all localized adverse impacts associated with the proposed Project; however, most of these localized adverse impacts would only be relocated to the alternative project site area.

Considering that a project site in Long Beach would generally have the same general characteristics as the proposed Irwindale project site, such as similar zoning requirements within a heavily disturbed industrial area, at a regional level, the impacts associated with Alternative 3 should be virtually indistinguishable from the proposed Project for the following subject areas:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services, Utilities, and Service Systems
- Recreation
- Utilities and Service Systems
- Water Resources

The primary subject areas that differentiate this alternative from the proposed Project relate to air quality and climate change, noise, and transportation, as discussed below. There could be exceptions to the list above depending on the exact property selected for use, which, for example, could include impacts to biological impacts if a property within the Port of Long Beach and proximate to identified critical bird habitat were acquired for use. However, it is assumed that the Project applicant for many reasons, such as cost, would not pick using a property that would have significant existing environmental limitations or existing site contamination issues that could impact several environmental issue areas, such as geology and soils, and hazards and hazardous materials.

Air Quality and Climate Change

This alternative would marginally increase total truck traffic considering the Project applicant's current customer base for recycled oil, and may substantially increase the total truck traffic if CleanTech is able to expand its customer base beyond the Port of Long Beach. Therefore, the air pollutant and greenhouse gas emissions associated with the Project's truck traffic would be increased. As noted in Section 3.2, the air pollutant and greenhouse gas emissions impacts associated with the Project are below South Coast Air Quality Management District significance thresholds; however, it is possible that the increase in truck traffic could cause the daily regional NOx emissions significance threshold to be exceeded. Therefore, the adverse regional air pollutant and greenhouse gas impacts would increase, perhaps significantly in the case of air quality. If a significant air quality impact were to occur, then a review of feasible mitigation measures would have to be completed. A requirement to only use newer lower-emitting haul trucks, depending on the CleanTech truck fleet age, may be able to reduce potential significant air quality impacts. Since this alternative would have similar construction requirements as the proposed Project, it is assumed it would require the same greenhouse gas emissions reduction mitigation measure as required for the proposed Project.

Noise

As addressed in Section 3.7, the proposed Project would require noisy construction activities and has a contingency truck route that could cause potentially significant impacts if noisy construction activities were to occur during overnight hours or if trucks were to need to use that route during rush hour or nighttime periods. The alternate project location alternative could reduce the potentially adverse impacts from the use of this contingency truck route. However, this alternative could have similar issues with respect to overnight construction noise levels exceeding ambient levels or truck noise levels impacting residential areas depending on its location and the route(s) to local freeways. Therefore, it is possible, depending on City of Long Beach Municipal Codes, that this alternative may require similar noise mitigation measures as required for the proposed Project to ensure that potentially significant noise impacts are mitigated to less-than-significant levels.

Transportation

This alternative would require more truck trips than the proposed Project due to the location being less efficient for local daily waste pickup. However, this alternative would reduce the adverse impacts on the local area roads and the 210 Freeway in comparison with the proposed Project as described in Section 3.8. Without a specific alternate project site to review, it is unclear if the localized traffic impacts would be increased or decreased, as that would be a function of the specific traffic intersections and freeway access routes for the alternative project site. Therefore, traffic impacts could increase or decrease and a route restriction mitigation measure may not be necessary and additional transportation mitigation measure may be necessary to reduce traffic impacts that would occur near the alternate project site. Depending on the exact alternate project site location, these traffic impacts may have the potential to remain significant after all feasible mitigation measures are implemented. Additionally, it is assumed that this alternative's regional traffic impacts would increase since the total number of trips and trip mileage within Southern California would increase.

Additionally, CleanTech has acquired certain operational benefits associated with the existing Project site. Those benefits include the ongoing synergistic relationship with Veolia Environmental Services (Veolia), which has a site located one block east of the Project site. This relationship has the following benefits:

- Truck parking for CleanTech vehicles, and
- Significant reduction of truck travel distances for wastes collected/bulked by each party that can be shipped to the other party for treatment/certification.

Alternative Conclusions

Alternative 3 would reduce localized adverse impacts associated with the proposed Project but would likely create similar or increased localized impacts in the Long Beach area and would increase the regional project impacts. Therefore, while an alternate project location is a viable alternative it would not have the potential to substantially reduce the proposed Project's adverse impacts.

5.4 Environmentally Superior Alternative

No project alternatives would result in significant environmental impacts with the potential exception of air quality and transportation impacts for Alternative 3 – Alternate Project Location. The No Project Alternative (Alternative 1) would result in the lowest level of direct project impacts; however, the No Project Alternative would result in higher regional and global scale impacts that would be required to address the used motor oil and other waste streams that would occur with or without the project.

There are adverse impacts associated with the proposed Project and Alternatives 2 and 3, and while some of those impacts may be reduced, at least locally, under Alternatives 2 and 3, Alternatives 2 and 3 do not cause an overall reduction of impacts from the necessary collection and recertification of used oil to recycled oil, or the collection and eventual treatment of the other Project waste streams. Therefore, the proposed Project is considered to be the environmentally superior alternative for the following reasons:

1. The proposed Project would treat more used oil and certify more recycled oil than Alternative 2 or the No Project Alternative. The permitted and controlled recycling of used oil is a beneficial action that would:
    a. Reduce the need for additional petroleum extraction and refining, and
    b. Ensure that used oil wastes are properly collected and treated and not emitted to the environment.
    c. Used oil and other waste streams would require collection and treatment, regardless of the whether the Project is approved. So, while the No Project Alternative is analyzed in the context of the approval of this particular Project, it does not represent a physical reality as these waste streams will require collection and treatment with or without the Project, which, if done under the No Project Alternative or Alternative 2 in a more piecemeal and less regulated fashion than would occur under the proposed Project, would surely increase the overall impacts associated with these waste streams.
2. The proposed Project would perform the same functions as Alternative 2, but would be more efficient, and therefore result in lower impacts for the same amount of waste throughput, due to a greater economy of scale related to the additional waste storage and throughput capacity. Therefore, the regional impacts related to the collection and processing of the waste stream quantities identified for the proposed Project are lower for the proposed Project than they would be for Alternative 2. Additionally, Alternative 2 leaves space for other operations at the proposed Project site that could increase the localized adverse impacts associated with site operations.
3. The proposed Project's location is relatively ideal, both in regards to the local synergy with the nearby Veolia facility and in respect to current local waste pick-up and the future plans for CleanTech's recycled oil customer base. Alternative 3 would reduce the localized adverse project impacts that would occur near the proposed Project site, but would just cause those adverse impacts to move to the alternate project location; and may actually increase those adverse impacts. In the case of air quality and traffic impacts, an alternative location near the Port of Long Beach may create significant and unavoidable impacts.

6. Other CEQA Considerations

6.1 Introduction

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment. As part of this analysis, the Environmental Impact Report (EIR) must also identify: (1) significant environmental effects of a proposed project; (2) significant environmental effects that cannot be avoided if a proposed project is implemented; (3) significant irreversible environmental changes that would result from implementation of a proposed project; (4) growth-inducing impacts of a proposed project; (5) mitigation measures proposed to minimize significant effects; and (6) alternatives to a proposed project.

6.2 Significant Environmental Effects

Table ES-1 (Summary of Environmental Impacts and Mitigation Measures), which is contained in the EIR Executive Summary, and EIR Sections 2.9 and 3.2 through 3.8 provides a comprehensive identification of the environmental effects of the proposed Project, and identifies feasible mitigation measures to reduce the magnitude of impacts.

6.3 Significant Environmental Effects that Cannot Be Avoided

Section 15126.2(b) of the CEQA Guidelines specifies that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. Implementation of the proposed Project would not result in significant and unavoidable impacts.

6.4 Significant Irreversible Environmental Effects

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the Project. Specifically, Section 15126.2(c) states:

> *Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses
- The project would involve a large commitment of nonrenewable resources
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy)
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project

Implementation of the Project is expected to result in a 20-year or longer commitment to operating a hazardous waste facility that treats and reclassifies used oil, a State designated hazardous waste, as non-hazardous recycled oil. The Project area is predominantly used for industrial and commercial purposes, which could continue unimpeded. It is not known whether the Project would be extended after 20 years. At the end of its useful life, the Project could be revised and re-permitted to allow for new technological approaches to used oil recycling, or decommissioned. The decision to decommission, or revise the operations after the proposed operations are no longer commercially viable, would depend on economics at the time, technological options, the landowner's willingness to renew the lease with the Project owner, and other considerations.

The Project would be part of the used oil recycling process, helping to offset the use of nonrenewable resources. Resources that would be consumed as a result of Project implementation include water, electricity, and fossil fuels during construction and operation; however, the small amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. Compliance with all applicable building codes, as well as County policies and the mitigation measures identified in this EIR would ensure that all natural resources are conserved to the maximum extent possible. The Project is not expected to result in environmental accidents that would cause irreversible damage. Compliance with required plans, such as a Stormwater Pollution Prevention Plan and Hazardous Materials Management Plan, would minimize the potential for accidents resulting in environmental damage.

6.5 Growth-Inducing Impacts

6.5.1 Background

In accordance with Section 15126.2(d) of the CEQA Guidelines, an EIR must "discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." In addition, when discussing growth-inducing impacts of a proposed project, "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment" (Section 15126.2(d) of the CEQA Guidelines). Two issues must be considered when assessing the growth-inducing impacts of a project:

- Elimination of Obstacles to Population Growth: The extent to which additional infrastructure capacity or a change in regulatory structure would allow additional development in the County and region,
- Promotion of Economic Growth: The extent to which a project can cause increased activity in the local or regional economy. Economic impacts can include direct effects, such as the direction and strategies implemented within the area of a project, and indirect or secondary impacts, such as increased commercial activity needed to serve the population growth forecasts by the Southern California Association of Governments for the project area.

6.5.2 Elimination of Obstacles to Population Growth

The elimination of either physical or regulatory obstacles to population growth is considered to be a growth-inducing impact. A physical obstacle to population growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that currently do not have these services is expected to support new development. The Project would not remove any obstacle to growth as it does not include the improvement of any public service infrastructures.

6.5.3 Promotion of Economic Growth

The Project would result in direct economic impacts to the County through employment and the local purchase of some construction materials, as well as secondary impacts from the purchases of goods and services by those employed by the Project. The Project would not directly or indirectly promote sufficient economic growth to result in a population that would exceed the projections of the Southern California Association of Governments, however. Less than 10 workers on average would be required to construct the Project (most of whom are expected to reside in the County), and construction would be completed within a 7-month period. Up to 20 additional people would be employed at the Project site, covering three shifts a day, 6 days a week, during operations.

6.6 Mitigation Measures Proposed to Minimize Significant Impacts

Table ES-1 (Summary of Environmental Impacts and Mitigation Measures), which is contained in the Executive Summary of this EIR, and Sections 2.9 and 3.2 through 3.8 of this EIR provide a comprehensive identification of the environmental impacts of the Project, and identifies feasible mitigation measures to reduce the magnitude of impacts.

6.7 Alternatives to the Project

Alternatives to the Project are analyzed in Section 5 (Alternatives Analysis) of this EIR.

7. Persons and Agencies Contacted

Organizations and/or persons consulted in the preparation of this Environmental Impact Report (EIR), beyond those references identified in Section 9, are listed below in Table 7-1.

TABLE 7-1. PERSONS CONSULTED

Name & Title	Affiliation	Year Contacted
Paula Kelly, Senior Planner	City of Irwindale, Planning Department	2014
John Norcia	Los Angeles County Department of Parks & Recreation	2014
Lily Quiroa, Community Relations Manager	Waste Management of Azusa	2014
Brandi Jones, Associate Planner	City of Irwindale, Planning Department	2014
Kim Cooke, Associate Planner	City of Azusa, Planning Division	2014
Conal McNamara, Assistant Community Development Director	City of Azusa, Planning Division	2014
Susan Cole, Senior Planner	City of Azusa, Planning Division	2014

In addition to the agency contacts listed above in Table 7-1 made by the preparers of the EIR listed in Section 8, a list of nine Native American groups or individuals, provided by the Native American Heritage Commission, who may have an interest in the Project were provided letters asking for comment on the Project and those letters were followed up by attempts at direct contact by telephone. Additionally, CleanTech's personnel and consultants have been contacting agency personnel, such as City of Irwindale and Los Angeles County Fire Department personnel, and others as necessary to initiate other required permitting processes for the proposed Project. Therefore, the information references provided by CleanTech include the information they have gathered during their agency contacts.

8. List of Preparers

TABLE 8-1. LIST OF PREPARERS – DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Name	Role
Alfred Wong	Project Manager
Kimberley Hudson	CEQA Lead

TABLE 8-2. LIST OF PREPARERS – ASPEN ENVIRONMENTAL GROUP

Name	Role
William Walters	Project Manager; Executive Summary; Introduction (Section 1); Project Description (Section 2); Mineral Resources (Section 2.9.5); Air Quality and Climate Change (Section 3.2); Alternatives* (Section 5.0); Other Required CEQA Sections (Section 6); Organizations and Persons Consulted (Section 7); List of Preparers (Section 8); References (Section 9)
Stanley Yeh	Deputy Project Manager; Public Services (Section 2.9.7); Utilities (Section 2.9.9); Hazards and Hazardous Materials (Section 3.5).
Susanne Huerta	Aesthetics (Section 2.9.1); Agriculture and Forestry Resources (Section 2.9.2); Land Use and Planning (Section 2.9.4); Population and Housing (Section 2.9.6); Recreation (section 2.9.8);Cumulative Impacts* (Section 4.0); Alternatives* (Section 5.0);
Aubrey Mescher	Geology and Soils (Section 2.9.3); Hydrology and Water Quality (Section 3.6).
Scott Debauche	Noise (Section 3.7); Traffic (Section 3.8)
Carla Wakeman	Biology (Section 3.3)
Matthew Braun Evan Elliott	Cultural Resources (Section 3.4)

* The environmental issue area authors also addressed the issue area specific discussions within these two sections.

9. References

Section 2 Project Description.

Azusa Light & Water. 2011. Urban Water Management Plan. Draft Copy.

Cable Gallagher (Cable Gallagher Law Firm). 2013. Petition for to Review, Hazardous Waste Facility Permit for Agritech International, Ltd., dba CleanTech Environmental, Inc., 5820 Martin Road, Irwindale, California 91706 (EPA ID # CAL 000330453). January 17, 2013.

CDFFP (California Department of Forestry and Fire Prevention). 2003. The Management Landscape Map. [Online]: http://frap.fire.ca.gov/data/frapgismaps/pdfs/landscapesmap.pdf. Accessed January 2014.

CDOC (California Department of Conservation). 2014. Department of Conservation, Division of Land Resource Protection – Heather Anderson, Environmental Planner. Personal communication with Susanne Huerta, Aspen Environmental Group. February 18, 2014.

___. 2010a. Los Angeles County Important Farmland 2010. [Online]: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/los10.pdf. Accessed January 2014.

___. 2010b. 2010 Fault Activity Map of California. [online]: http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html. Accessed February 13, 2014.

___. 1999. State of California Seismic Hazard Zones. Baldwin Park Quadrangle Official Map. Released March 25. [online]: http://gmw.consrv.ca.gov/shmp/download/quad/BALDWIN_PARK/maps/ozn_baldp.pdf. Accessed February 15, 2014.

___. 1998. Seismic Hazard Zone Report for the Baldwin Park 7.5-minute Quadrangle, Los Angeles County, California. [online]: http://gmw.consrv.ca.gov/shmp/download/quad/BALDWIN_PARK/reports/baldp_eval.pdf. Accessed February 13, 2014.

City of Azusa. 2004. General Plan, Chapter 3: The Built Environment. [Online]: http://www.ci.azusa.ca.us/DocumentCenter/Home/View/218. Accessed January 2014.

City of Irwindale. 2014. Zoning Map. The map is not dated, but according to the City's Planning Department, the map reflects the City's current zoning. [Online]: http://www.ci.irwindale.ca.us/DocumentCenter/View/40. Accessed February 2014.

___. 2010. Zoning Verification Letter, 5820 Martin Avenue, Irwindale, CA 91706. June 23, 2010.

___. 2008. General Plan Update, June 2008. [Online]: http://www.ci.irwindale.ca.us/DocumentCenter/View/38. Accessed January 2014.

CleanTech. 2014. Agritec International, Ltd dba CleanTech Environmental, Inc. Irwindale Facility Revised Part A and Part B Permit Application. 2014.

___. 2013/2014. Project Description Information Request Responses. Various Dates December 2013 through March 2014.

___. 2011. Agritec International, Ltd dba CleanTech Environmental, Inc. Irwindale Facility Part A and Part B Permit Application. October 17, 2011.

DOGGR (Division of Oil, Gas, and Geothermal Resources) 1992. California Oil & Gas Fields, Volume II – Southern, Central Coastal, and Offshore California Oil and Gas Fields. ftp://ftp.consrv.ca.gov/pub/oil/publications/Datasheets/Dtasheet_vol_2.pdf. 1992.

DTSC (Department of Toxic Substances Control). 2012. Hazardous Waste Facility Permit for CleanTech Environmental Inc. Signed December 20, 2012.

DEC (Dynamic Earth Consultants, Inc.). 2011. Phase I Environmental Site Assessment, 5820 Martin Road, Irwindale, CA 91706. November 7, 2011.

Lewis et al. (Lewis Brisbois Bisgaard & Smith LLP). 2013. Stipulation and Order Regarding Review and Issuance of Hazardous Waste Facility Permit. Signed July 16, 2013.

SCAQMD (South Coast Air Quality Management District). 2013. Permit to Construct for Application No. 553449. July 25, 2013.

Truman & Elliott (Truman & Elliot LLP). 2013. Petition for Review of Hazardous Waste Facility Permit for CleanTech Environmental, Inc., 5820 Martin Road, Irwindale, California 91706 (EPA ID No. CAL 000330453)("Project"). January 17, 2013.

Section 3 – Environmental Setting, Impacts, and Mitigation.

Section 3.2 – Air Quality and Climate Change.

AEP (Association of Environmental Professionals). 2011. 2011 California Environmental Quality Act (CEQA) Statute and Guidelines. [Online]: http://califaep.org/docs/CEQA/CEQAHandbook2011.pdf. Accessed January 2014.

ARB (Air Resources Board). 2014a. Ambient Air Quality Standards available on ARB Website. [Online]: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed January 2014.

ARB. 2014b. Federal and State area designation maps. [Online]: http://www.arb.ca.gov/desig/adm/adm.htm. Accessed May 2014.

ARB. 2008. Climate Change Scoping Plan. [Online]: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. December 2008.

ARB. 2006. Commercial Idling Restrictions. [Online]: http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm. Accessed January 2014.

ARB. 2004. California Diesel Fuel Regulations. Title 13, California Code of Regulations, Sections 2281-2285 and Title 17, California Code of Regulations, Section 93114. August 14, 2004.

ARB. 1998. Motor Vehicle Fuel Specifications § 2292.6. Specifications for Liquefied Petroleum Gas. [Online]: http://www.arb.ca.gov/regs/t13-regulations/s2290-2293_5.pdf. Approved December 11, 1998. Accessed February 2014.

CAPCOA (California Air Pollution Control Officers Association). 2009. Model Policies for Greenhouse Gases in General Plans. http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-ModelPolicies-6-12-09-915am.pdf. June 2009.

CNRA (California Natural Resources Agency). 2009. FINAL STATEMENT OF REASONS FOR REGULATORY ACTION, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97. December 2009. [Online]: http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

City of Irwindale. 2008. General Plan: [online]: www.ci.irwindale.ca.us/DocumentCenter/View/38. Accessed February 25, 2014.

OAG (California Office of the Attorney General). 2014. Mitigation for Greenhouse Gas Emissions (website). http://oag.ca.gov/environment/ceqa/measures. Accessed March 2014.

OPR (Governor's Office of Planning and Research). 2008. Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review. http://opr.ca.gov/docs/june08-ceqa.pdf. June 19, 2008.

SCAQMD (South Coast Air Quality Management District). 2014. South Coast Air Quality Management District Rules and Regulations. [Online]: http://www.aqmd.gov/rules/index.html. Accessed January 2014.

SCAQMD. 2013a. 2012 Air Quality South Coast Air Quality Management District. [Online]: http://www.aqmd.gov/smog/historical/AQ12card.pdf.

SCAQMD. 2013b. Permit to Construct for Application No. 553449. July 25, 2013.

SCAQMD. 2013c. Air Quality Analysis Guidance Handbook. [Online]: http://aqmd.gov/ceqa/hdbk.html. Accessed December 2013.

SCAQMD. 2012a. 2011 Air Quality South Coast Air Quality Management District. [Online]: http://www.aqmd.gov/smog/historical/AQ11card.pdf.

SCAQMD. 2012b. Final 2012 Air Quality Management Plan. [Online]: http://www.aqmd.gov/aqmp/2012aqmp/Final/Chapters.pdf.

SCAQMD. 2011. 2010 Air Quality South Coast Air Quality Management District. [Online]: http://www.aqmd.gov/smog/historical/AQ10card.pdf.

SCAQMD. 2007. South Coast Air Quality Management District 2007 Air Quality Management Plan. [Online]: http://www.aqmd.gov/aqmp/07aqmp/draft/07aqmp.pdf. Accessed January 2014.

SCAQMD. 2003a. South Coast Air Quality Management District 2003 Air Quality Management Plan. [Online]: http://www.aqmd.gov/aqmp/AQMD03AQMP.htm. Accessed January 2014.

SCAQMD. 2003b. Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions. [Online]: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. Accessed August 2011.

SDAPCD (San Diego Air Pollution Control District). 1999. Propane engine emissions factors. [Online]: http://www.sdapcd.org/toxics/emissions/combliq/e08.pdf. Last Updated on 8/24/99. Accessed February 2014.

TCR (The Climate Registry). 2014. The Climate Registry's 2014 Default Emission Factors. [Online]: http://www.theclimateregistry.org/downloads/2014/03/2014-TCR-Default-EFs-with-EPA-11.29.2013-update.pdf. Released January 10, 2014.

TCR. 2013. General Reporting Protocol, Version 2.0. [Online]: http://www.theclimateregistry.org/downloads/2013/03/TCR_GRP_Version_2.0.pdf. March 2013.

USEPA (United States Environmental Protection Agency). 2014a. The Green Book Nonattainment Areas for Ozone. [Online]: http://www.epa.gov/oar/oaqps/greenbk/gncs.html. Accessed January 2014.

USEPA. 2014b. Emission Factors & AP 42, Compilation of Air Pollutant Emission Factors. [Online]: http://www.epa.gov/ttnchie1/ap42/. Accessed January 2014.

USEPA. 2014c. Nonroad Large Spark-Ignition Engines – Exhaust and Evaporative Emissions Standards. [Online]: http://www.epa.gov/otaq/standards/nonroad/largesi.htm. Accessed February 2014.

USEPA. 2007. Federal Register: May 11, 2007 (Volume 72, Number 91). Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes. [Online]: http://www.epa.gov/fedrgstr/EPA-AIR/2007/May/Day-11/a8673.htm. Accessed January 2014.

USEPA. 2004. Regulatory Announcement Clean Air Nonroad Diesel Rule. EPA420-F-04-032. May 2004.

USEPA. 2000. Regulatory Announcement Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements. EPA420-F-00-057. December 2000.

WC (Weather Channel). 2014. Monthly Averages for Azusa, California. [Online]: http://www.weather.com/weather/wxclimatology/monthly/USCA0059. Accessed January 2014.

Section 3.3 – Biological Resources.

CDFW (California Department of Fish and Wildlife). 2011. Special Animals. http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/spanimals.pdf.

CNDDB (California Natural Diversity Database). 2014. RareFind results for USGS topographic quads Azusa, Baldwin Park, El Monte, Glendora, La Habra, Mount Wilson, San Dimas, Whittier, and Yorba Linda. Accessed February 6, 2014.

DTSC (California Department of Toxic Substances Control). 2010. California Environmental Quality Act Initial Study: Veolia Hazardous Waste Facility Permit.

Commission for Environmental Cooperation (CEC). 2008. North American Monarch Conservation Plan. http://www.mlmp.org/Resources/pdf/5431_Monarch_en.pdf.

DEC (Dynamic Earth Consultants, Inc.). 2011. Phase I Environmental Site Assessment, 5820 Martin Road, Irwindale, CA 91706. November 7, 2011.

eBird. 2014. Santa Fe Dam Rec Area: eBird Hotspots. http://ebird.org/ebird/hotspot/L459816. Accessed February 6, 2014.

Long, M.C. 2009. Vascular Flora of Santa Fe Dam, Irwindale, Los Angeles County; Working Draft, http://cnps-sgm.org/santafedam/SantaFeDamFlora.doc. Revised March 27, 2009.

Los Angeles County Department of Parks and Recreation (LA County). 2014. Santa Fe Dam Recreation Area. http://parks.lacounty.gov/wps/portal/dpr/Parks/Santa_Fe_Dam_Recreational_Area. Accessed February 13, 2014.

LADPW (Los Angeles County Department of Public Works). 2006. Final Program Environmental Impact Report, San Gabriel River Master Plan. http://dpw.lacounty.gov/wmd/watershed/sg/mp/peir.cfm.

LADRP (Los Angeles County Department of Regional Planning). 2014. Significant Ecological Areas, Frequently Asked Questions. http://planning.lacounty.gov/assets/upl/project/sea_faq.pdf. Accessed February 18, 2014.

NPS (National Park Service). 2013a. San Gabriel Watershed and Mountains Special Resource Study, Summary and Final Recommendations. http://www.nps.gov/pwro/sangabriel/San_Gabriel_SRS_Final_Recommendations_April_2013.pdf. Accessed February 2013.

___. 2013b. San Gabriel Watershed and Mountains Special Resource Study, Frequently Asked Questions. http://www.nps.gov/pwro/sangabriel/faqs.htm. Updated May 2013.

PCR (PCR Services Corporation). 2000. Biological Resources Assessment of the San Gabriel Canyon Significant Ecological Area. http://planning.lacounty.gov/assets/upl/project/sea_2000-BRA-SanGabrielCanyon.pdf.

Strong, J. 2004. The Natural History of the Santa Fe Dam Recreation Area. Hydrology. California Native Plant Society, San Gabriel Mountains Chapter. http://cnps-sgm.org/santafedam/dam.html. Accessed February 13, 2014.

Truman and Elliott LLP. 2013. Petition for Review of Hazardous Waste Facility Permit for CleanTech Environmental, Inc.

USACE (US Army Corps of Engineers). 2013. Santa Fe Dam Basin, Sediment Stockpile Management, Draft Environmental Assessment and Finding of No Significant Impact. http://www.spl.usace.army.mil/Portals/17/docs/publicnotices/SANTA_FE_Sediment_dEA_June_1.pdf. Accessed February 2014.

Section 3.4 – Cultural Resources.

Aspen (Aspen Environmental Group). 2009. Final Environmental Impact Report/Statement: Southern California Edison's Application for the Tehachapi Renewable Transmission Project, Volume 2. Prepared for the California Public Utilities Commission and the United States Forest Service. 2009.

Bean and Smith (Lowell J. Bean and Charles R. Smith). 1978. "Gabrielino". In *Handbook of North American Indians, Volume 8 California*. Robert F. Heizer, ed. Smithsonian Institution: Washington, D.C.

BLM (Bureau of Land Management). 1998. Handbook 8270-1: General Procedural Guidance for Paleontological Resource Management. United States Department of the Interior, Bureau of Land Management. http://www.blm.gov/pgdata/etc/medialib/blm/ut/natural_resources/cultural/paleo/Paleontology_Documents.Par.64888.File.dat/8270_hbk.pdf Accessed March 3, 2014.

Byrd and Raab (Brian F. Byrd and Mark Raab). 2007. "Prehistory of the Southern Blight". In California Prehistory: Colonization, Culture and Complexity. Terry L. Jones and Kathryn A. Klar, eds. Alta Mira Press: Lanham, MD.

Conkling (Steven W. Conkling). 2011. Paleontological Resources Identification and Evaluation Report for Interstate 710 Corridor Project, Ocean Boulevard to State Route 60, County of Los Angeles, California. http://media.metro.net/projects_studies/I710/images/tech_study/Paleontology_PIR-PER.pdf. Accessed March 3, 2014.

Cornejo (Jeffrey Lawrence Cornejo). 2007. Azusa: Images of America. Arcadia Publishing: Mount Pleasant, South Carolina.

CHRIS (California Historical Resources Information Center). 2014. Response Letter from the South Central Coast Information Center, RE: CleanTech. March 2014.

DEC (Dynamic Earth Consultants, Inc.). 2011. Phase I Environmental Site Assessment, 5820 Martin Road, Irwindale, CA 91706. November 7, 2011.

Eckert (Ed J. Eckert, R.C.E. 34587). 1984. Shop Building Drawing for Mr. N Barron, 5820 Martin Road, Irwindale, Cal. Signed Grading Notes. November 5, 1984.

Hancock (Henry Hancock). 1865. Township 1 South, Range 10 West, San Bernardino Meridian. San Francisco: Surveyor General's Office, July 28, 1865. Courtesy of the United States Department of the Interior, Bureau of Land Management.

NAHC (Native American Heritage Commission). 2011. Response Letter from the Native American Heritage Commission. November 8, 2011.

Norway (W.H. Norway). 1877. Township 1 South, Range 10 West, San Bernardino Meridian. San Francisco: Surveyor General's Office. Courtesy of the United States Department of the Interior, Bureau of Land Management. April 17, 1877.

Salas. 2014. E-mail from Andy Salas, Chairman of Gabrieleno Band of Mission Indians/Kizh Nation Of the Los Angeles Basin, Orange County and the Channel islands, to William Walters, Aspen Environmental Group. May 5, 2014.

State of California. 2007. Geologic Map of the San Bernardino Quadrangle. http://www.quake.ca.gov/gmaps/RGM/sanbernardino/sanbernardino.html Accessed March 3, 2014.

SVP (Society of Vertebrate Paleontology). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Resources. http://vertpaleo.org/PDFS/8f/8fe02e8f-11a9-43b7-9953-cdcfaf4d69e3.pdf Accessed March 3, 2014.

Thompson (G.H. Thompson). 1869. Township 1 South, Range 10 West, San Bernardino Meridian. San Francisco: Surveyor General's Office. Courtesy of the United States Department of the Interior, Bureau of Land Management. April 29, 1869.

USGS (United States Geological Survey). 1901. Southern CA Sheet 1 [map]. 1:250,000. 60 Minute Series. Washington, D.C.: USGS 1948.

____. 1904. Pomona [map]. 1:62,500. 15 Minute Series. Washington, D.C.: USGS 1904.

____. 1939. Azusa [map]. 1:24,000. 7.5 Minute Series. Washington, D.C.: USGS 1939.

____. 1953. Baldwin Park [map]. 1:24,000. 7.5 Minute Series. Washington, D.C.: USGS 1953.

____. 1966. Baldwin Park [map]. 1:24,000. 7.5 Minute Series. Washington, D.C.: USGS 1966.

____. 1972. Baldwin Park [map]. 1:24,000. 7.5 Minute Series. Washington, D.C.: USGS 1972.

____. 1981. Baldwin Park [map]. 1:24,000. 7.5 Minute Series. Washington, D.C.: USGS 1981.

____. 2006. Guidebook for the Western United States: Part C. The Santa Fe Route. Geological Survey Bulletin 613. http://www.cr.nps.gov/history/online_books/geology/publications/bul/613//sec24.htm. Accessed March 3, 2014.

Section 3.5 - Hazards and Hazardous Materials.

CALEPA (California Environmental Protection Agency). 2011. Cortese List: Section 65962.5(a). http://www.calepa.ca.gov/sitecleanup/corteselist/SectionA.htm). Accessed in February 2014.

CleanTech. 2013/2014. Project Description Information Request Responses. Various Dates December, 2013 and January, 2014.

DEC (Dynamic Earth Consultants, Inc.), 2011. Phase I Environmental Site Assessment. November 7, 2011.

DTSC (Department of Toxic Substances Control), 2012. Hazardous Waste Facility Permit for CleanTech Environmental Inc. Signed December 20, 2012.

Dexsil (Dexsil Corporation), 2013. Material Safety Data Sheet. CLOR-D-TECT 1000 Chlorine/Halogen Test Kit. Prepared on June 25, 2013.

Section 3.6 – Hydrology and Water Quality.

CLA-DPR (County of Los Angeles Department of Parks and Recreation), 2014. Santa Fe Dam Recreation Area. [online]: http://parks.lacounty.gov/wps/portal/dpr/Parks/Santa_Fe_Dam_Recreational_Area. Accessed March 13, 2014.

CLA-DPW (County of Los Angeles Department of Public Works), 2011. Consolidated Sewer Maintenance District Condition Assessment Program Report. Project No. Y0TV1011A. [online]: http://dpw.lacounty.gov/smd/cctv/city/Irwindale/Irwindale%20-%20Y0TV1011A%20CCTV%20Inspection%20Project%20Report.pdf. Accessed March 13, 2014.

City of Irwindale, 2008. City of Irwindale 2020 General Plan – General Plan Update. [online]: http://www.ci.irwindale.ca.us/DocumentCenter/View/38. Accessed March 4, 2014.

DWR (California Department of Water Resources), 2004. California's Groundwater Bulletin 118. South Coast Hydrologic Region – San Gabriel Valley Groundwater Basin. [online]: http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/4-13.pdf. Accessed March 3, 2014.

FEMA (Federal Emergency Management Agency), 2008. Flood Insurance Rate Map 06037C1700F. September 26. [online]: https://msc.fema.gov/webapp/wcs/stores/servlet/QuickOrderResultView. Accessed March 6, 2014.

LACDPW (Los Angeles County Department of Public Works), 2014. San Gabriel River Watershed. [online]: http://ladpw.org/wmd/watershed/sg/. Accessed March 7, 2014.

LARWQCB (Los Angeles Regional Water Quality Control Board), 2000. State of the Watershed – Report on Surface Water Quality. The San Gabriel River Watershed. June 2000.

MSGBW (Main San Gabriel Basin Watermaster), 2014. About Us. [online]: http://watermaster.org/geninfo.html. Accessed March 3, 2014.

USACE (U.S. Army Corps of Engineers), 2014. Dam Safety Program – Santa Fe Dam. [online]: http://www.spl.usace.army.mil/Missions/CivilWorks/Media/FactSheets/tabid/1321/Article/676/dam-safety-program.aspx. Accessed March 13, 2014.

USEPA (U.S. Environmental Protection Agency), 2013. Pacific Southwest, Region 9: Superfund. San Gabriel Valley (area 1) El Monte, South El Monte, Whittier Narrows. [online]: http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/ViewByEPAID/CAD980677355. Accessed March 13, 2014.

WQA (Water Quality Authority), 2014. Baldwin Park Operable Unit. [online]: http://www.wqa.com/our-projects/baldwin-park/. Accessed March 13, 2014.

Section 3.7 – Noise

Caltrans (California Department of Transportation). 1998. Technical Noise Supplement to the Traffic Noise Analysis Protocol. October. [online]: http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf. Accessed February 2014.

City of Azusa. 2004. General Plan [online]: http://www.ci.azusa.ca.us/index.aspx?NID=160. Accessed February 25, 2014.

City of Baldwin Park. 2004. 2020 General Plan: [online]: http://www.baldwinpark.com/index.php?option=com_docman&task=cat_view&gid=135. Accessed February 25, 2014.

City of Irwindale. 2008. General Plan: [online]: www.ci.irwindale.ca.us/DocumentCenter/View/38. Accessed February 25, 2014.

FHWA (Federal Highway Administration). 2006. Construction Noise Handbook. August 2006. [online]: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/. Accessed May 2014.

FTA (Federal Transit Authority). 2006. Transit Noise and Vibration Impact Assessment, Table 12-1. May 2006. [online]: http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed February 2014.

Municode. 2014. Municipal Code for Irwindale, Azusa, and Baldwin Park [online]: library.municode.com. Accessed on February 25.

Section 3.8 – Transportation.

Caltrans (California Department of Transportation). 2002. Guide for the Preparation of Traffic Impact Studies. [online]: http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf. December 2002.

___. 2012. Traffic and Vehicle Data Systems Unit
2012 All Traffic Volumes on CSHS. [online]: http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/index.html. Accessed February 28, 2014.

City of Azusa. 2004. General Plan [online]: http://www.ci.azusa.ca.us/index.aspx?NID=160 accessed February 25, 2014.

___. 2011. Waste Management Material Recovery Facility Transfer Station and Household Hazardous Waste Facility Draft EIR. March 2011.

City of Irwindale. 2008. General Plan: [online]: www.ci.irwindale.ca.us/DocumentCenter/View/38 Accessed February 25, 2014.

DMV (California Department of Motor Vehicles). 2014. 2014 California Vehicle Code. [online]: http://dmv.ca.gov/pubs/vctop/vc/vc.htm. Accessed February 27.

Metro (Los Angeles County Metropolitan Transportation Authority). 2010. Congestion Management Program (CMP). [online]: http://www.metro.net/projects/congestion_mgmt_pgm/. Accessed February 28, 2014.

Section 4 – Cumulative Impacts.

CalRecycle. 2013. County of Los Angeles Public Health – Notice of Public Informational Hearing [Online]: http://www.calrecycle.ca.gov/SWFacilities/Permitting/Notices/EAInfoMtgs/2013/AzusaTrnsMRF.pdf. Accessed February 2014.

DTSC (California Department of Toxic Substances Control). 2010. California Environmental Quality Act Initial Study: Veolia Hazardous Waste Facility Permit.

City of Azusa. 2014. Permit Activity Listings – Permit Listing Report. [Online]: http://www.ci.azusa.ca.us/DocumentCenter/View/26154. Accessed February 2014.

City of Irwindale. 2014. City of Irwindale Planning Division – Paula Kelly, Senior Planner. Personal communication with Susanne Huerta, Aspen Environmental Group. February 10 and 11, 2014.

___. 2009. Irwindale Materials Recovery Facility and Transfer Station Project Draft Environmental Impact Report.

KYL (Kare Youth League). 2014. About Kare – What's Next? [Online]: http://www.kyl.org/new/#./about-us. Accessed February 2014.

Metro (Metro Gold Line Foothill Extension Construction Authority). 2014. Cities/Stations – Irwindale Construction News. [Online]: http://www.foothillextension.org/cities-stations/irwindale/. Accessed February 2014.

___. 2013. Metro Gold Line Foothill Extension – Azusa to Montclair Final Environmental Impact Report. Accessed February 2014. http://www.foothillextension.org/construction_phases/azusa_to_montclair/metro-gold-line-foothill-extension-azusa-to-montclair-draft-environmental-impact-report/.

Section 5 – Alternatives Analysis.

CleanTech. 2011. Agritec International, Ltd dba CleanTech Environmental, Inc. Irwindale Facility Part A and Part B Permit Application. October 17, 2011.

Appendix A

Air Quality Emissions Calculations

Construction - Emission Calculation Assumptions A-1

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Construction - Emission Calculation Assumptions

General Assumption

1) Work occurs 5 days a week, 7 am to 5 pm, excepting major holidays (average 22 days/month).

Worst-Case Day Assumption

1) There are two potential worst-case day potential scenarios, the first being the worst-case day for off-road equipment when the bobcat and the backhoe are both operating during a day of tank area excavation, or during a concrete pour that maximizes onroad vehicle use. A critical review of these two cases has determined that the concrete pour case is the worst-case day for construction both for onsite emissions and offsite emissions of NOx and PM which are the pollutants with the lowest regional and localized significance thresholds.

Onroad Equipment Emission Calculations Assumptions

1) Emission factors are the latest available from the SCAQMD website, where the vehicles have been assigned three classes, passenger (i.e. employee vehicles and pickups), delivery (all nonpassenger vehicles smaller than Heavy-Heavy Duty), and heavy-heavy duty vehicles, and 2015 emission factors are used to calculate the emissions.
2) Trip estimates are based on raw material import/export trips (12 CY/truck for dirt and waste concrete and assume a few additonal haul trips for other office demolition waste and misc. debris removal), equipment delivery, and worker trips provided by the applicant.
3) Trip distance assumptions: 41 miles/round trip for work trucks, 3 miles/round trip for for dump trucks, 65 miles/round trip for saw trucks, and 30 miles/round trip for construction employees per SCAG RTP average commuting distance.

Offroad Equipment Emission Calculation Assumption

1) Emission factors are the latest available from the SCAQMD website, linearly interpolated to the actual engine horsepower, and 2015 emission factors are used to calculate the emissions for the entire construction period.

Fugitive Dust Emission Calculations Assumptions

1) Fugitive dust emissions are estimated using AP-42.
2) There is no unpaved travel. Only paved road dust emissions are calculated since other fugitive dust activities (i.e. eathmoving and wind erosion) are negligible, primarily indoors and assumed to be well controlled.

Greenhouse Gas Emission Calculations Assumptions

1) GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol (ver. 2.0 March 2013)
2) For diesel-fueled equipment, fuel consumption rate of 0.38 lbs/bhp-hr and density of 6.8 lbs/gallon are used.
3) For gasoline-fueled equipment, fuel consumption rate of 0.47 lbs/bhp-hr and density of 6.0 lbs/gallon are used.
4) Incremental electricity use is negligible during construction.

Construction - Emissions Summary

Maximum Daily Emissions (lbs/day)

	VOC	CO	NOx	SOx	PM10	PM2.5
Onroad	1.09	6.52	9.16	0.02	0.44	0.37
Offroad	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	--	--	--	--	1.87	0.46
Total	1.09	6.52	9.16	0.02	2.32	0.83
SCAQMD Regional Thresholds	75	550	100	150	150	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*

Total Construction Emissions (tons)

	VOC	CO	NOx	SOx	PM10	PM2.5
Onroad	0.01	0.08	0.08	0.00	0.00	0.00
Offroad	0.00	0.02	0.02	0.00	0.00	0.00
Fugitive Dust	--	--	--	--	0.01	0.00
Total	0.02	0.10	0.10	0.00	0.01	0.01

Construction Schedule

Activity	Month						
	1	2	3	4	5	6	7
Phase 1 Permitting	XXXX	XXXX					
Phase 1 Construction			XXX				
Phase 2 Permitting			XXXX	XXXX			
Phase 2 Construction					XXX		
Phase 3 Permitting					XXXX	XXXX	
Phase 3 Construction							XXX
Source: CleanTech 2013/2014							

Construction - Schedule Phasing & Equipment Use/Vehicle Trips

Assumptions:

1. Work occurs 5 days a week, 7 am to 5 pm, excepting major holidays (average 22 days/month).
2. Trips are round trips, and all trips are assumed to occur on paved roads.
3. Construction phases do not overlap, and there are many subphases in each phase that do not overlap.
4. Worst-case daily activity is based on a determination of maximum daily activity occurring within each phase not the total phase activity.
5. In addition to the diesel-fueled off-road equipment noted below electric sissorlifts will be used during construction.

Construction Schedule

Phase	Activity	Duration (work days)	Concrete/Soil Removal (yd^3)
1A	Tank Area	28	61
1B	Interior Sump	10	15
1C	Truck Apron	8	27
2A	Tank Area	28	94
2B	Interior Sump	10	15
2C	Truck Apron	8	27
3	Tank Area	28	76

Onroad Vehicle Use

							Total	
Phase	Activity	Onroad Vehicle	Vehicle Type	Total VMT/Trip	Trips/ Day	Total Trips	VMT/ Day	Total VMT
1A	Tank Area	Employee/Work Trucks	Passenger	30	10	95	300	2,850
		Misc. Deliv. (pipes, etc.)	Delivery	80	1	5	80	400
		Dump Trucks	HHDT	3	2	8	6	24
		Concrete Trucks	HHDT	20	6	7	120	140
		Concrete Pump Truck	HHDT	120	1	1	120	120
		Tank Deliveries	HHDT	172	1	3	172	516
		Work Truck	Delivery	41	3	28	123	1,148
		Saw Truck	Delivery	65	1	1	65	65
1B	Interior Sump	Employee/Work Trucks	Passenger	30	7	13	210	390
		Misc. Deliv. (grating, etc.)	Delivery	80	1	2	80	160
		Dump Trucks	HHDT	3	1	3	3	9
		Concrete Trucks	HHDT	20	1	1	20	20
		Work Truck	Delivery	41	1	10	41	410
		Saw Truck	Delivery	65	1	1	65	65
1C	Truck Apron	Employee/Work Trucks	Passenger	30	7	13	210	390
		Misc. Deliveries	Delivery	80	1	1	80	80
		Dump Trucks	HHDT	3	1	4	3	12
		Concrete Trucks	HHDT	20	3	3	60	60
		Work Truck	Delivery	41	1	8	41	328
		Saw Truck	Delivery	65	1	1	65	65
2A	Tank Area	Employee/Work Trucks	Passenger	30	10	99	300	2,970
		Misc. Deliv. (pipes, etc.)	Delivery	80	1	5	80	400
		Dump Trucks	HHDT	3	2	11	6	33
		Concrete Trucks	HHDT	20	9	10	180	200
		Concrete Pump Truck	HHDT	120	1	1	120	120
		Tank Deliveries	HHDT	172	1	4	172	688
		Work Truck	Delivery	41	3	28	123	1,148
		Saw Truck	Delivery	65	1	1	65	65
2B	Interior Sump	Employee/Work Trucks	Passenger	30	7	13	210	390
		Misc. Deliv. (grating, etc.)	Delivery	80	1	2	80	160
		Dump Trucks	HHDT	3	1	3	3	9
		Concrete Trucks	HHDT	20	1	1	20	20
		Work Truck	Delivery	41	1	10	41	410
		Saw Truck	Delivery	65	1	1	65	65
2C	Truck Apron	Employee/Work Trucks	Passenger	30	7	13	210	390
		Misc. Deliveries	Delivery	80	1	1	80	80
		Dump Trucks	HHDT	3	1	4	3	12
		Concrete Trucks	HHDT	20	3	3	60	60
		Work Truck	Delivery	41	1	8	41	328
		Saw Truck	Delivery	65	1	1	65	65
3	Tank Area	Employee/Work Trucks	Passenger	30	10	95	300	2,850
		Misc. Deliv. (pipes, etc.)	Delivery	80	1	5	80	400
		Dump Trucks	HHDT	3	2	9	6	27
		Concrete Trucks	HHDT	20	7	8	140	160
		Concrete Pump Truck	HHDT	120	1	1	120	120
		Tank Deliveries	HHDT	172	1	3	172	516
		Work Truck	Delivery	41	3	28	123	1,148
		Saw Truck	Delivery	65	1	1	65	65

Construction - Schedule Phasing & Equipment Use/Vehicle Trips

Offroad Equipment Use

Phase	Activity	Type of Equipment	HP	Quantity	Hr/day	Total Days
1A	Tank Area	Concrete Saw	35	1	8	2
		Bobcat	75	1	8	1
		Backhoe	127	1	8	2
1B	Interior Sump	Concrete Saw	35	1	8	1
		Bobcat	75	1	8	1
1C	Truck Apron	Saw	35	1	8	1
		Backhoe	127	1	8	1
		Bobcat	75	1	8	1
2A	Tank Area	Concrete Saw	35	1	8	2
		Bobcat	75	1	8	1
		Backhoe	127	1	8	2
2B	Interior Sump	Concrete Saw	35	1	8	1
		Bobcat	75	1	8	1
2C	Truck Apron	Concrete Saw	35	1	8	1
		Backhoe	127	1	8	1
		Bobcat	75	1	8	1
3	Tank Area	Concrete Saw	35	1	8	2
		Bobcat	75	1	8	1
		Backhoe	127	1	8	2

Construction - Onroad Vehicle Emission Calculations

SCAQMD Emission Factors - 2015 (pounds/mile)

	VOC	CO	NOx	SOx	PM10	PM2.5
Passenger	0.0007	0.0061	0.0006	0.00001	0.0001	0.0001
Delivery	0.0017	0.0117	0.0129	0.00003	0.0005	0.0004
Heavy-Heavy Duty	0.0018	0.0077	0.0212	0.00004	0.0010	0.0009

Worst-Case Daily Construction Emissions (Regional)

Phase 2A Tank Area - Concrete Pour

	VMT/day	Emissions (lbs/day)					
Vehicle Type	Total	VOC	CO	NOx	SOx	PM10	PM2.5
Passenger	300	0.20	1.84	0.18	0.00	0.03	0.02
Delivery	203	0.35	2.37	2.61	0.01	0.10	0.08
Heavy-Heavy Duty	300	0.54	2.30	6.37	0.01	0.31	0.26
	Totals	1.09	6.52	9.16	0.02	0.44	0.37

Total Construction Emissions

	VMT	Emissions (lbs)					
Vehicle Type	Total	VOC	CO	NOx	SOx	PM10	PM2.5
Passenger	10,230	6.79	62.82	6.16	0.11	0.95	0.62
Delivery	7,055	12.27	82.50	90.66	0.19	3.55	2.91
Heavy-Heavy Duty	2,866	5.12	21.98	60.84	0.12	3.00	2.52
	Totals	24.17	167.31	157.65	0.42	7.50	6.05

Construction - Offroad Equipment Emission Calculations

Assumptions:

1. SCAQMD CEQA website emission factors for 2015 fleet average are used for all criteria pollutants, with corrections to load factors per CARB OFFROAD 2011.
2. Worst case daily emissions only include the daily overlapping equipment, which is only the bobcat and backhoe during tank area construction phases.

Offroad Emission Factors - 2015 (pounds/hour)

	Offroad Equipment	HP	Number	Off-road Emission Factor (lbs/hr) ROG	CO	NOx	SOx	PM	Hrs/day	Days
Phase 1A	Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	2
	Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	1
	Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	2
Phase 1B	Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	1
	Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	1
Phase 1C	Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	1
	Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	1
	Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	1
Phase 2A	Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	2
	Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	1
	Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	2
Phase 2B	Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	1
	Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	1
Phase 2C	Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	1
	Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	1
	Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	1
Phase 3	Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	2
	Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	1
	Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	2

Phase 1A Tank Area

	HP	Number	Emission Factor (lbs/hour) ROG	CO	NOx	SOx	PM	Hours/day	Daily Emissions (lbs/day) ROG	CO	NOx	SOx	PM	Days	Total Emissions (lbs) ROG	CO	NOx	SOx	PM
Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	0.23	0.80	0.97	0.00	0.06	2	0.46	1.61	1.94	0.00	0.12
Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	0.35	1.70	1.65	0.00	0.12	1	0.35	1.70	1.65	0.00	0.12
Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	0.33	2.02	2.23	0.00	0.16	2	0.65	4.04	4.46	0.01	0.32
									0.91	4.52	4.85	0.01	0.34		1.46	7.34	8.05	0.01	0.56

Phase 1B Interior Sump

	HP	Number	Emission Factor (lbs/hour) ROG	CO	NOx	SOx	PM	Hours/day	Daily Emissions (lbs/day) ROG	CO	NOx	SOx	PM	Days	Total Emissions (lbs) ROG	CO	NOx	SOx	PM
Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	0.23	0.80	0.97	0.00	0.06	1	0.23	0.80	0.97	0.00	0.06
Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	0.35	1.70	1.65	0.00	0.12	1	0.35	1.70	1.65	0.00	0.12
									0.58	2.50	2.61	0.00	0.18		0.58	2.50	2.61	0.00	0.18

Phase 1C Truck Apron

	HP	Number	Emission Factor (lbs/hour) ROG	CO	NOx	SOx	PM	Hours/day	Daily Emissions (lbs/day) ROG	CO	NOx	SOx	PM	Days	Total Emissions (lbs) ROG	CO	NOx	SOx	PM
Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	0.23	0.80	0.97	0.00	0.06	1	0.23	0.80	0.97	0.00	0.06
Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	0.33	2.02	2.23	0.00	0.16	1	0.33	2.02	2.23	0.00	0.16
Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	0.35	1.70	1.65	0.00	0.12	1	0.35	1.70	1.65	0.00	0.12
									0.91	4.52	4.85	0.01	0.34		0.91	4.52	4.85	0.01	0.34

Construction - Offroad Equipment Emission Calculations

Phase 2A Tank Area

			Emission Factor (lbs/hour)						Daily Emissions (lbs/day)						Total Emissions (lbs)				
	HP	Number	ROG	CO	NOx	SOx	PM	Hours/day	ROG	CO	NOx	SOx	PM	Days	ROG	CO	NOx	SOx	PM
Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	0.23	0.80	0.97	0.00	0.06	2	0.46	1.61	1.94	0.00	0.12
Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	0.35	1.70	1.65	0.00	0.12	1	0.35	1.70	1.65	0.00	0.12
Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	0.33	2.02	2.23	0.00	0.16	2	0.65	4.04	4.46	0.01	0.32
									0.91	4.52	4.85	0.01	0.34		1.46	7.34	8.05	0.01	0.56

Phase 2B Interior Sump

			Emission Factor (lbs/hour)						Daily Emissions (lbs/day)						Total Emissions (lbs)				
	HP	Number	ROG	CO	NOx	SOx	PM	Hours/day	ROG	CO	NOx	SOx	PM	Days	ROG	CO	NOx	SOx	PM
Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	0.23	0.80	0.97	0.00	0.06	1	0.23	0.80	0.97	0.00	0.06
Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	0.35	1.70	1.65	0.00	0.12	1	0.35	1.70	1.65	0.00	0.12
									0.58	2.50	2.61	0.00	0.18		0.58	2.50	2.61	0.00	0.18

Phase 2C Truck Apron

			Emission Factor (lbs/hour)						Daily Emissions (lbs/day)						Total Emissions (lbs)				
	HP	Number	ROG	CO	NOx	SOx	PM	Hours/day	ROG	CO	NOx	SOx	PM	Days	ROG	CO	NOx	SOx	PM
Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	0.23	0.80	0.97	0.00	0.06	1	0.23	0.80	0.97	0.00	0.06
Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	0.33	2.02	2.23	0.00	0.16	1	0.33	2.02	2.23	0.00	0.16
Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	0.35	1.70	1.65	0.00	0.12	1	0.35	1.70	1.65	0.00	0.12
									0.91	4.52	4.85	0.01	0.34		0.91	4.52	4.85	0.01	0.34

Phase 3 Tank Area

			Emission Factor (lbs/hour)						Daily Emissions (lbs/day)						Total Emissions (lbs)				
	HP	Number	ROG	CO	NOx	SOx	PM	Hours/day	ROG	CO	NOx	SOx	PM	Days	ROG	CO	NOx	SOx	PM
Concrete Saw	35	1	0.0288	0.1004	0.1210	0.0002	0.0074	8	0.23	0.80	0.97	0.00	0.06	2	0.46	1.61	1.94	0.00	0.12
Bobcat	75	1	0.0438	0.2124	0.2057	0.0003	0.0150	8	0.35	1.70	1.65	0.00	0.12	1	0.35	1.70	1.65	0.00	0.12
Backhoe	127	1	0.0408	0.2523	0.2790	0.0005	0.0199	8	0.33	2.02	2.23	0.00	0.16	2	0.65	4.04	4.46	0.01	0.32
									0.91	4.52	4.85	0.01	0.34		1.46	7.34	8.05	0.01	0.56

	Worst Case Daily Emissions (lbs/day)					Total Emissions (lbs)				
	ROG	CO	NOx	SOx	PM	ROG	CO	NOx	SOx	PM
Bobcat + Backhoe	0.68	3.72	3.88	0.01	0.28	7.37	36.07	39.06	0.06	2.70

Construction - Fugitive Dust Emissions

Assumptions:

1. Fugitive dust emissions from paved road travel are estimated using AP-42 Section 13.2.1.
2. Vehicle travel would occur on paved roads, including the project site which is paved.
3. The excavation work is assumed to have negligible fugitive dust emissions as that work: a) would primarily occur indoors; b) would be easily controlled given the availability of water at the site; and c) is very limited in nature.

Paved Road Dust

$E = [k \times (sL)^{0.91} \times (W)^{1.02}]*(1-P/4N)$

E = lb/VMT

k = Constant (0.0022 for PM10 and 0.00054 for PM2.5)

sL = Silt Loading (assumed to be 0.03 g/m2 for ADT>10,000 of Table 13.2.1-2)

W = Average weight of vehicles in tons (calculated below)

P = Days of precipitation (0 assumed for limited construction period)

N = Days in period (not relevant given P=0 assumption)

Average Vehicle Weight Calculation

Assumptions

Passenger Vehicles = 2 tons average

Midsize "Delivery" Vehicles = 8 ton average

Heavy-Heavy Duty Trucks = 27.5 tons average (loaded 40 tons, unloaded 15 tons)

	Passenger Vehicles	Delivery/Work Vehicles	Heavy-Heavy Duty Vehicles	Total Paved VMT	Average Weight (Tons)
Max Daily VMT	300	203	300	803	13.0

	Passenger Vehicles	Delivery/Work Vehicles	Heavy-Heavy Duty Vehicles	Total Paved VMT	Average Weight (Tons)
Total Project VMT	10,230	7,055	2,866	20,151	7.7

Daily Emission Factors (lb/VMT)

	PM10	PM2.5
Max Daily EF	0.00233	0.00057

Emissions (Lbs/day)

	PM10	PM2.5
Overlap	1.87	0.46

Total Emission Factors (lb/VMT)

	PM10	PM2.5
Total Project EF	0.0007	0.0002

Emissions (Tons)

	PM10	PM2.5
Total Project	0.01	0.00

Construction - Greenhouse Gas Emissions

Onroad Vehicle GHG Emission Calculations

Assumptions:

1. GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol (ver. 2.0 March 2013), and January 2014 updated default emissions factors and Global Warming Potentials of 25 and 298 for methane (CH4) and nitrous oxide (N2O).

EMFAC 2011 Fuel Consumption Rate in SCAB (gallon/mile)

Passenger	Gasoline	0.0485
Delivery	Diesel	0.1121
Heavy-Heavy Duty	Diesel	0.1731

TCR Table 13.1 Carbon Dioxide Emission Factors for Transport Fuels (kg CO2/gallon)

	CO2
Motor Gasoline	8.78
Diesel	10.21

TCR Table 13.5 Emission Factors for Each Fuel and Vehicle Type (g/mile)

		CH4	N2O
Passenger*	Gasoline	0.0168	0.0051
Delivery	Diesel	0.0010	0.0015
Heavy-Heavy Duty	Diesel	0.0051	0.0048

*Passenger vehicles (Model Year 2010) are assumed to be half passenger cars and half light trucks (vans, pickup trucks, and SUVs).

Onroad Emission Factors - 2015 (pounds/mile)

	CO2	CH4	N2O
Passenger	0.94	3.7E-05	1.1E-05
Delivery	2.52	2.2E-06	3.3E-06
Heavy-Heavy Duty	3.90	1.1E-05	1.1E-05

On-road GHG Emissions

	VMT	Total Emissions (tons)			
Vehicle Type	Total	CO2	CH4	N2O	CO2e
Passenger	10,230	4.80	0.00	0.00	4.82
Delivery	7,055	8.90	0.00	0.00	8.90
Heavy-Heavy Duty	2,866	5.58	0.00	0.00	5.59
	Totals	19.28	0.00	0.00	19.31

Construction - Greenhouse Gas Emissions

Offroad Equipment GHG Emission Calculations

Assumptions:

1. GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol (ver. 2.0 March 2013), and January 2014 updated default emissions factors and Global Warming Potentials of 25 and 298 for methane (CH4) and nitrous oxide (N2O).
2. For diesel-fueled equipment, fuel consumption rate of 0.38 lbs/bhp-hr and density of 6.8 lbs/gallon are used.
3. For gasoline-fueled equipment, fuel consumption rate of 0.47 lbs/bhp-hr and density of 6.0 lbs/gallon are used.

TCR Table 13.1 Carbon Dioxide Emission Factors for Transport Fuels (kg CO2/gallon)

	CO2 (kg/gallon)
Diesel	10.21

TCR Table 13.7 Methane and Nitrous Oxide Emission Factors for Non-Highway Vehicles

Construction	CH4 (g/gallon)	N2O (g/gallon)
Diesel	0.58	0.26

Offroad GHG Emissions

	Fuel Use (gallons)	Total Emissions (tons)			
		CO2	CH4	N2O	CO2e
Diesel	319	3.59	0.00	0.00	3.62

Total GHG Emissions

CO2E Emissions (Tons/year)	22.93

Operation - Emission Calculation Assumptions

General Assumptions

1) Work occurs 6 days a week, 24 hours/day.
2) Emissions from existing processes, if retained on-site are part of the baseline and are not included in the emissions estimates for the proposed project.
3) Fugitive VOC emissions from the various motor oil and antifreeze wastes are negligible.
4) Additional detailed assumptions are provided on the emissions calculations sheets.

Onroad Equipment Emission Calculations Assumptions

1) Emission factors are the latest available from the SCAQMD website, where the vehicles have been assigned three classes, passenger (i.e. employee vehicles and pickups), delivery (all nonpassenger vehicles smaller than Heavy-Heavy Duty), and heavy-heavy duty vehicles, and 2015 emission factors are used to calculate the emissions.
2) Trip estimates are estimated based on the maximum monthly throughputs shown in Table 2-5 of the Project Description, with the following additional assumptions: a) gallons/trip estimates were provided by the applicant and are shown in Table 2-5 of the Project Description; b) additional employee trips are based on applicant estimates of additional employees and number of shifts covered.
3) Trip distance assumptions: 30 miles/round trip for employees and inbound and outbound truck trips are based on applicant estimates.

Offroad Equipment Emission Calculation Assumptions

1) Two propane forklifts will be used. See emissions sheet for specific assumptions.

Fugitive Dust Emission Calculations Assumptions

1) Fugitive dust emissions are estimated using USEPA AP-42 Section 13.2.1.
2) There is no unpaved travel. Only paved road dust emissions are calculated, there are no other operating fugitive dust emissions sources.

Greenhouse Gas Emission Calculations Assumptions

1) GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol (ver. 2.0 March 2013)
2) For diesel-fueled equipment, fuel consumption rate of 0.38 lbs/bhp-hr and density of 6.8 lbs/gallon are used.
3) For gasoline-fueled equipment, fuel consumption rate of 0.47 lbs/bhp-hr and density of 6.0 lbs/gallon are used.
4) For propane-fueled equipment, fuel consumption rate of 0.44 lbs/bhp-hr and density of 4.2 lbs/gallon are used.

Operation - Emissions Summary

Maximum Daily Emissions (lbs/day)

	VOC	CO	NOx	SOx	PM10	PM2.5
Onroad	4.56	21.74	49.63	0.10	2.47	2.06
Offroad	0.03	1.09	0.64	0.05	0.08	0.08
Fugitive Dust	--	--	--	--	11.57	2.84
Total	4.60	22.84	50.27	0.15	14.12	4.98
SCAQMD Regional Thresholds	55	550	55	150	150	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*

Annual Emissions (tons)

	VOC	CO	NOx	SOx	PM10	PM2.5
Onroad	0.60	2.90	6.41	0.01	0.32	0.27
Offroad	0.01	0.16	0.10	0.01	0.01	0.01
Fugitive Dust	--	--	--	--	0.79	0.19
Total	0.60	3.06	6.51	0.02	1.12	0.47

Project Truck Trip Assumptions and VMT Estimates

Maximum

	received	loadout	Units	Mo. Thru	Annual received	Annual loadout	Monthly received	Monthly loadout	Weekly received	Weekly loadout	Daily received	Daily loadout
Used Oil	2,500	6,400	gallons	1,500,000	7,200	2,813	600	234	138	54	29	11
Waste Antifreeze	300	6,000	gallons	60,000	0	120	0	10	0	2	0	0
Non-RCRA Wastewater	250	6,000	gallons	35,000	0	70	0	6	0	1	0	0
Solid Waste	10	88	Drums	2134	2,561	291	213	24	49	6	10	1
				Totals	9,761	3,294	813	274	187	63	39	12
					Subtotal	**13,055**		**1,087**		**250**		**51**

	VMT - Round Trip		Annual received	Annual loadout	Monthly received	Monthly loadout	Weekly received	Weekly loadout	Daily received	Daily loadout
Used Oil	111	80.0	799,200	225,040	66,600	18,720	15,318	4,320	3,219	880
Waste Antifreeze	111	0.1	0	12	0	1	0	0	0	0
Non-RCRA Wastewater	112	70.0	0	4,900	0	420	0	70	0	0
Solid Waste	112	70.0	286,832	20,370	23,856	1,680	5,488	420	1,120	70
		Subtotals	HHDT	**1,049,522**		**87,421**		**20,128**		**4,169**
			Delivery	**286,832**		**23,856**		**5,488**		**1,120**

Current Trips

	received	loadout	Units	Mo. Thru	Annual received	Annual loadout	Monthly received	Monthly loadout	Weekly received	Weekly loadout	Daily received	Daily loadout
Used Oil	2,500	6,400	gallons	656,250	3,150	1,230	263	103	61	24	13	5
Waste Antifreeze	300	6,000	gallons	0	0	0	0	0	0	0	0	0
Non-RCRA Wastewater	125	6,000	gallons	23,625	0	47	0	4	0	1	0	0
Solid Waste	10	88	Drums	1890	2,268	258	189	21	44	5	9	1
				Totals	5,418	1,535	452	128	105	30	22	6
					Subtotal	**6,953**		**580**		**135**		**28**

	VMT - Round Trip		Annual received	Annual loadout	Monthly received	Monthly loadout	Weekly received	Weekly loadout	Daily received	Daily loadout
Used Oil	111	80.0	349,650	98,400	29,193	8,240	6,771	1,920	1,443	400
Waste Antifreeze	111	0.0	0	0	0	0	0	0	0	0
Non-RCRA Wastewater	112	70.0	0	3,290	0	280	0	70	0	0
Solid Waste	112	70.0	254,016	18,060	21,168	1,470	4,928	350	1,008	70
		Subtotals	HHDT	**469,400**		**39,183**		**9,111**		**1,913**
			Delivery	**254,016**		**21,168**		**4,928**		**1,008**

New Employee Assumptions and Vehicle Trip/VMT Estimates

1) Two office workers 5 days a week, one shift a day, 22 days per month (this assumes given the loss of office space that some of the office workers now at the site will move with the oil filter crushing and oil filtering operation)
2) Two - process area workers, one each for process area 1 and process area 2, 3 shifts per day, 6 days per week, 26 days per month (7 total)
3) One - laboratory chemist, three shifts per day, six days per week, 26 days per month (4 total)
4) 3 truckers, two shifts per day, six days per week, 26 days per month (7 total truckers)
5) This adds up to 20 new employees total working at the site
6) VMT/Trip = 30 miles round trip per SCAG RTIP average (14.8 miles one-way)

Trips	Daily	Weekly	Monthly	Annual
Office	2	10	44	528
Process	6	36	156	1,872
Chemist	3	18	78	936
Truckers	6	35	156	1,872
Total	17	99	434	5,208
Max/Shift	10			
VMT	510	2,970	13,020	156,240

Operation - Onroad Vehicle Emission Calculations

Assumptions:

1) The total delivery and heavy-heavy duty vehicle trips are based on the maximum monthly throughputs with a maximum day being equal to 150 percent of an average day given 6 days a week of operation, rounded to the next highest integer of trips.
2) Passenger vehicle mileage is based on the increase in employees and rounding up the SCAG RTP average communting distance (rounded to 30 miles/round trip)
3) Annual days of operation including holidays is assumed to be 310 days per year.

Emission Factors - 2015 (pounds/mile)*

	VOC	CO	NOx	SOx	PM10	PM2.5
Passenger	0.0007	0.0061	0.0006	0.00001	0.0001	0.0001
Delivery	0.0017	0.0117	0.0129	0.00003	0.0005	0.0004
Heavy-Heavy Duty	0.0018	0.0077	0.0212	0.00004	0.0010	0.0009

*SCAQMD fleet average emission factors for 2015

Worst-Case Daily Emissions

		Emissions lbs/day					
Vehicle Type	VMT	VOC	CO	NOx	SOx	PM10	PM2.5
Passenger	510	0.34	3.13	0.31	0.01	0.05	0.03
Delivery	112	0.19	1.31	1.44	0.00	0.06	0.05
Heavy-Heavy Duty	2,256	4.03	17.30	47.89	0.09	2.36	1.98
	Totals	4.56	21.74	49.63	0.10	2.47	2.06

Annual Emissions

		Emissions tons/year					
Vehicle Type	VMT	VOC	CO	NOx	SOx	PM10	PM2.5
Passenger	156,240	0.05	0.48	0.05	0.00	0.01	0.00
Delivery	32,816	0.03	0.19	0.21	0.00	0.01	0.01
Heavy-Heavy Duty	580,122	0.52	2.22	6.16	0.01	0.30	0.26
	Totals	0.60	2.90	6.41	0.01	0.32	0.27

Operation - Offroad Equipment Emission Calculations

Assumptions:

1) The project would have two 63 horsepower propane fueled forklifts that would operate a maximum of 6 hours per day each and 300 days/year.
2) Emission factors are based on USEPA Emissions Standards for Non-Road Large Spark-Ignition Offroad Equipment and ARB load factor of 20 percent. NOx assumed to be 95 percent of the HC+NOx emissions standard.
3) Sulfur content of fuel is assumed to be equal to the worst case CARB LPG specification of 80 ppm S and a consumption rate of 0.44 lbs per hp-hr.
4) Particulate emissions factor are based on SDAPCD PM emissions factor for Propane fired engines of 5 lbs/1000 gallons.

Propane Forklift Emissions Factors

		Emission Factor (lbs/hour)					
	HP	ROG	CO	NOx	SOx	PM10	PM2.5
Forklifts	63	0.0028	0.0912	0.0532	0.0044	0.0066	0.0066

ForkLift Emissions

		Daily Emissions (lbs/day)					
Number	Hours/day	ROG	CO	NOx	SOx	PM10	PM2.5
2	6	0.03	1.09	0.64	0.05	0.08	0.08

	Annual Emissions (lbs/year)					
Days	ROG	CO	NOx	SOx	PM	PM2.5
300	10.07	328.37	191.42	15.97	23.76	23.76

Operation - Fugitive Dust Emissions

Assumptions:

1. Fugitive dust emissions are estimated using AP-42.
2. Equipment usage, amount of material handling, and VMT assumptions are presented under "Schedule & Equipment" and "Onroad Vehicles Emission Calculations" above.

Paved Road Dust

$E = [k \times (sL)^{0.91} \times (W)^{1.02}]*(1-P/4N)$

E = lb/VMT

k = Constant (0.0022 for PM10 and 0.00054 for PM2.5)

sL = Silt Loading (assumed to be 0.03 g/m2 for ADT>10,000 of Table 13.2.1-2)

W = Average weight of vehicles in tons (calculated below)

P = Days of precipitation (15 assumed for annual calculation)

N = Days in period (365 for annual calculation)

Average Vehicle Weight Calculation

Assumptions

Passenger Vehicles = 2 tons average

Midsize "Delivery" Vehicles = 8 ton average

Heavy-Heavy Duty Trucks = 27.5 tons average (loaded 40 tons, unloaded 15 tons)

	Passenger Vehicles	Delivery/Work Vehicles	Heavy-Heavy Duty Vehicles	Total Paved VMT	Average Weight (Tons)
Worst-Case Daily	510	112	2,256	2,878	22.2

	Passenger Vehicles	Delivery/Work Vehicles	Heavy-Heavy Duty Vehicles	Total Paved VMT	Average Weight (Tons)
Annual	156,240	32,816	580,122	769,178	21.5

Daily Emission Factors (lb/VMT)

	PM10	PM2.5
Worst-Case Daily	0.00402	0.00099

Emissions (Lbs/day)

	PM10	PM2.5
Worst-Case Daily	11.57	2.84

Total Emission Factors (lb/VMT)

	PM10	PM2.5
Annual	0.0020	0.0005

Emissions (Tons)

	PM10	PM2.5
Annual	0.79	0.19

Operation - Greenhouse Gas Emissions

Onroad Vehicle GHG Emission Calculations

Assumptions:

1. GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol (ver. 2.0 March 2013), and January 2014 updated default emissions factors and Global Warming Potentials of 25 and 298 for methane (CH4) and nitrous oxide (N2O).

EMFAC 2011 Fuel Consumption Rate in SCAB (gallon/mile)

Passenger	Gasoline	0.0485
Delivery	Diesel	0.1121
Heavy-Heavy Duty	Diesel	0.1731

TCR Table 13.1 Carbon Dioxide Emission Factors for Transport Fuels (kg CO2/gallon)

	CO2
Motor Gasoline	8.78
Diesel	10.21

TCR Table 13.5 Emission Factors for Each Fuel and Vehicle Type (g/mile)

		CH4	N2O
Passenger*	Gasoline	0.0168	0.0051
Delivery	Diesel	0.0010	0.0015
Heavy-Heavy Duty	Diesel	0.0051	0.0048

*Passenger vehicles (Model Year 2010) are assumed to be half passenger cars and half light trucks (vans, pickup trucks, and SUVs).

Onroad Emission Factors - 2015 (pounds/mile)

	CO2	CH4	N2O
Passenger	0.94	3.7E-05	1.1E-05
Delivery	2.52	2.2E-06	3.3E-06
Heavy-Heavy Duty	3.90	1.1E-05	1.1E-05

Total On-road GHG Emissions

	VMT	Total Emissions (tons)			
Vehicle Type	Total	CO2	CH4	N2O	CO2e
Passenger	156,240	73.27	0.00	0.00	73.61
Delivery	32,816	41.39	0.00	0.00	41.41
Heavy-Heavy Duty	580,122	1130.34	0.00	0.00	1131.33
	Totals	1245.00	0.01	0.00	1246.35

Operation - Greenhouse Gas Emissions

Offroad Equipment GHG Emission Calculations

Assumptions:

1. GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol (ver. 2.0 March 2013), and January 2014 updated default emissions factors and Global Warming Potentials of 25 and 298 for methane (CH4) and nitrous oxide (N2O).
2. For diesel-fueled equipment, fuel consumption rate of 0.38 lbs/bhp-hr and density of 6.8 lbs/gallon are used.
3. For gasoline-fueled equipment, fuel consumption rate of 0.47 lbs/bhp-hr and density of 6.0 lbs/gallon are used.
3. For propane-fueled equipment, fuel consumption rate of 0.44 lbs/bhp-hr and density of 4.2 lbs/gallon are used.

TCR Table 13.1 Carbon Dioxide Emission Factors for Transport Fuels (kg CO2/gallon)

	CO2 (kg/gallon)
Propane	5.59

TCR Table 13.7 Methane and Nitrous Oxide Emission Factors for Non-Highway Vehicles

Construction	CH4 (g/gallon)	N2O (g/gallon)
Propane	0.17	0.01

Total Offroad GHG Emissions

	Fuel Use (gallon)	Total Emissions (tons)			
		CO2	CH4	N2O	CO2e
Propane	4,752	29.29	0.00	0.00	29.31

Indirect Electricity Use GHG Emission Calculations

Assumptions:

1. GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol (ver. 2.0 March 2013), and January 2014 updated default emissions factors and Global Warming Potentials of 25 and 298 for methane (CH4) and nitrous oxide (N2O).

	MWh/yr	CO2e/MWh	CO2E/yr
Annual Increase	185.2	661.24	61.23
		lbs/MWh	Tons

Total GHG Emissions

CO2E Emissions (Tons/year)	1336.89

Screening Level Health Risk Assessment

Assumptions:

1) Annual concentration based on SCREEN3 hourly impacts multiplied by 0.08 per USEPA Guidance.
2) The DPM emissions are modeled as a single volume source with an initial height of 2 meters and vertical dimension of 4 meters to account for the buoyancy of the diesel engine exhaust and with an initial lateral dimension of 25 meters, which is considered a reasonable assumption given the spread of emissions over the project site truck ramp/parking area.
3) SCREEN3 modeling inputs are attached, and nearest off-site worker is assumed to be 100 meters away and the nearest residential receptor is assumed to be 1,600 meters away from the project site.
4) The DPM emissions rate modeled was 0.00045 grams per second, equivalent to annual average emissions, conservatively assuming 5 percent of the total DPM emissions occur onsite.
5) Risk Calculations based on SCAQMD's "Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile
6) Unit risk and REL factors are from CARB/OEHHA Consolidated Table of OEHHA/ARB Approved Risk Assessment

Calculations

Cancer Risk = CRdpm = Cdpm x URFdpm x LEA x ProjAdj x EmisCorr

Where:
CRdpm = Cancer Risk from DPM exposure
Cdpm = Annual Average Concentration of DPM (SCREEN3 results time 0.08 for annual)
URFdpm = Unit Risk Factor for DPM (300 in a million for DPM)
LEA = Lifetime exposure adjustment (1 for residents, 0.66 for workers for facility not operating 24 hours/day)
ProjAdj = Added factor that adjusts for project life of 20 years (20/70)
EmisCorr = Emissions correction, the division of the calculated emissions and the modeled emissions.

	Cdpm	URFdpm	LEA	ProjAdj	**CRdpm**
Resident	0.001053	3.00E-04	1	0.43	**1.35E-07**
Worker	0.0292	3.00E-04	0.66	0.43	**2.48E-06**

Chronic HI = HIdpm = Cdpm / RELdpm x EmisCorr

Where:
Hidpm Chronic Health Index for DPM exposure (unitless)
Cdpm = Annual Average Concentration of DPM (SCREEN3 results time 0.08 for annual)
RELdpm Reference Exposure Level DPM (5.0 ug/m3)
EmisCorr = Emissions correction, the division of the calculated emissions and the modeled emissions.

	Cdpm	RELdpm	**Hidpm**
Resident	0.001053	5.00	**0.00021**
Worker	0.0292	5.00	**0.00584**

03/19/14
15:10:53

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 13043 ***

CleanTech

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE              =       VOLUME
   EMISSION RATE (G/S)      =     0.450000E-03
   SOURCE HEIGHT (M)        =       2.0000
   INIT. LATERAL DIMEN (M)  =      25.0000
   INIT. VERTICAL DIMEN (M) =       4.0000
   RECEPTOR HEIGHT (M)      =       1.5000
   URBAN/RURAL OPTION       =        URBAN

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC            U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   Y (M)   Z (M)  DWASH
-------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
   100.   0.3650        5     1.0    1.0 10000.0    2.00   34.88   10.97    NO
  1600.   0.1316E-01    5     1.0    1.0 10000.0    2.00  153.47   70.86    NO

 DWASH=   MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

     ****************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ****************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   ---------   -------
SIMPLE TERRAIN      0.3650          100.        0.


***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

Appendix B

Cultural Resources Inventory Report

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
anthro.fullerton.edu/sccic.html - sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

February 27, 2014 SCCIC #13753.0426

Mr. Matthew Braun
Aspen Environmental Group
5020 Cheseboro Rd., Ste.200
Agoura Hills, CA
(916) 379-0350

RE: Clean Tech/3256, 5820 Martin Road, Irwindale, CA 91706

Dear Mr. Braun,

As per your request received on February 25, 2014, a records search was conducted for the above referenced project. The search includes a review of all recorded archaeological sites within a ¼-mile radius of the project site as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), and the California State Historic Resources Inventory (HRI) listings were reviewed for the above referenced project. The following is a summary of the findings.

Baldwin Park, CA USGS 7.5' Quadrangle

MAPPED ARCHAEOLOGICAL RESOURCES:

No archaeological sites have been recorded on our maps within a ¼-mile radius of the project site. No archaeological sites are recorded within the project site. No sites are listed on the Archaeological Determination of Eligibility (DOE) list. No isolates have been recorded within a ¼-mile radius of the project site. No isolates are recorded within the project site.

MAPPED HISTORIC BUILT-ENVIRONMENT RESOURCES:

No above-ground historic resources have been recorded on our maps within a ¼-mile radius of the project site. No above-ground historic resources are recorded within the project site.

ADDITIONAL CULTURAL RESOURCES (all other listings)

The **California Historic Resources Inventory (HRI)** lists no properties that have been evaluated for historical significance within a ¼-mile radius of the project site. These are additional resources that are listed in the Historic Property Data File and are located either within the project site or within the search radius.

The **California Point of Historical Interest (SPHI)** of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a ¼-mile radius of the project site.

The **California Historical Landmarks (SHL)** of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a ¼-mile radius of the project site.

The **California Register of Historical Resources (CAL REG)** lists no properties within a ¼-mile radius of the project site. These are properties determined to have a National Register of Historic Places Status of 1 or 2, a California Historical Landmark numbering 770 and higher, or a Point of Historical Interest listed after 1/1/1998.

The **National Register of Historic Places (NRHP)** lists no properties within a ¼-mile radius of the project site.

HISTORIC MAPS:

Copies of our historic maps – Pomona, CA (1894 & 1904) 15' USGS - are enclosed for your review.

PREVIOUS CULTURAL RESOURCES INVESTIGATIONS:

Five studies (LA261*, LA3824, LA10501, LA10532, LA10896) have been recorded within a ¼-mile radius of the project site. Of these, one study has been recorded that subsume or intersect the project site.
(= Located within the project site)*

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you **do not include** resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at 657.278.5395 Monday through Thursday 9:00 am to 3:30 pm.

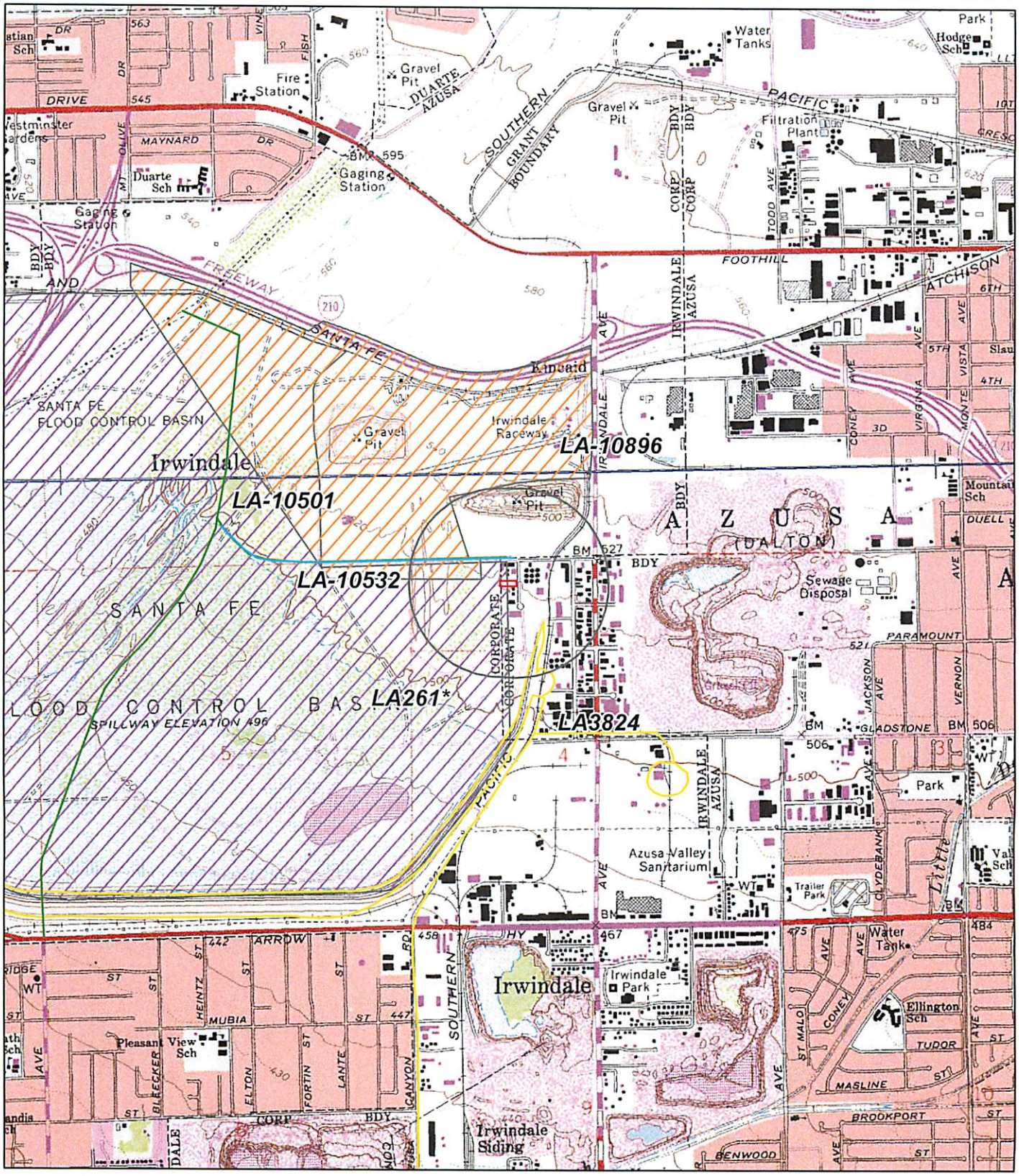
Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Sincerely,
SCCIC

Lindsey Noyes
Lead Staff Researcher

Enclosures:

(X) Maps – Baldwin Park, CA 7.5′ USGS Quadrangle, Pomona, CA (1894 & 1904) 15′ USGS Quadrangle – 5 pages
(X) GIS Shapefiles for all reports seen above – 5 shapefiles on CD
(X) Bibliography – 9 pages
(X) Excel Report Datebase Spreadsheet – 5 lines on CD
(X) Survey Reports – (all reports seen above) – 159 pdf pages
(X) Invoice #13753.0426



Miles
0 0.15 0.3 0.6
Kilometers
0 0.15 0.3 0.6

South Central Coastal Information Center

Reports, 1/2-mile APE:
LA261*, LA3824, LA10501, LA10532, LA10896

Baldwin Park, CA
USGS 7.5'
PR: 1981 | 1:24,000
Inv. #13753
Feb 2014

May contain confidential information, NOT for public distribution

SCCIC Bibliography: Clean Tech 3256

LA-00261

Author(s): Rosen, Martin D.
Year: 1975
Title: Evaluation of the Archaeological Resources and Potential Impact of the Proposed Removal and Recreation Developments at the Santa Fe Dam and Basin, Los Angeles Count
Affiliation: UCLA Archaeological Survey
Resources:
Quads: AZUSA, BALDWIN PARK
Pages:
Notes:

LA-03824

Author(s): Anonymous
Year: 1995
Title: Cultural Resources Report for the Baldwin Park Operable Unit Water Delivery Plan
Affiliation: Greenwood and Associates
Resources:
Quads: BALDWIN PARK
Pages:
Notes:

LA-10501

Author(s): Toren, George A.
Year: 1994
Title: Cultural Resource Survey of Three Segments of the Proposed San Gabriel Valley Water Reclamation Project, Los Angeles County, California
Affiliation: Greenwood and Associates
Resources: 19-002207
Quads: AZUSA, BALDWIN PARK, EL MONTE
Pages: 17
Notes:

LA-10532

Author(s): Landis, Daniel G.
Year: 1993
Title: A Prelimiary Cultural Resources Overview for the Proposed San Gabriel Valley Reclamation Program, Los Angeles County, California
Affiliation: Greenwood & Associates
Resources:
Quads: AZUSA, BALDWIN PARK, EL MONTE
Pages: 13
Notes:

SCCIC Bibliography: Clean Tech 3256

LA-10896

Author(s): Greenwood, David

Year: 2004

Title: Historic Properties Survey and Effects Report for the Gold Line Phase II Project (Pasaden to Montclair) Los Angeles and San Bernardino Counties, CA

Affiliation: Myra L. Franck/Jones & Stokes, Applied EarthWorks

Resources: 19-000075, 19-179337, 19-179357, 19-180728, 19-183943, 19-185548, 19-185894, 19-186059, 19-187944, 19-189103, 19-189104, 19-189105, 19-189106, 19-189107, 19-189108, 19-189109, 19-189110, 19-189111, 19-189112, 19-189113, 19-189114, 19-189115, 19-189116, 19-189117, 19-189118, 19-189119, 19-189120, 19-189121, 19-189122, 19-189123, 19-189124, 19-189125, 19-189126, 19-189127, 19-189128, 19-189129, 19-189130, 19-189131, 19-189132, 19-189133, 19-189134, 19-189135, 19-189136, 19-189137, 19-189138, 19-189139, 19-189140, 19-189141, 19-189142, 19-189143, 19-189144, 19-189145, 19-189146, 19-189147, 19-189148, 19-189149, 19-189150, 19-189151, 19-189152, 19-189153, 19-189154, 19-189155, 19-189156, 19-189157, 19-189158, 19-189159, 19-189160, 19-189161, 19-189162, 19-189163, 19-189164, 19-189165, 19-189166, 19-189167, 19-189168, 19-189169, 19-189170, 19-189171, 19-189172, 19-189173, 19-189174, 19-189175, 19-189176, 19-189177, 19-189178, 19-189179, 19-189180, 19-189181, 19-189182, 19-189183, 19-189184, 19-189185, 19-189186, 19-189187, 19-189188, 19-189189, 19-189190, 19-189191, 19-189192, 19-189193, 19-189194, 19-189195, 19-189196, 19-189197, 19-189198, 19-189199, 19-189200, 19-189201, 19-189202, 19-189203, 19-189204, 19-189205, 19-189206, 19-189207, 19-189208, 19-189209, 19-189210, 19-189211

Quads: AZUSA, BALDWIN PARK, GLENDORA, MT WILSON, ONTARIO, SAN DIMAS

Pages: 88

Notes:

South Central Coastal Information Center Detail Record: LA-00261

Citation Information

Authors: Rosen, Martin D.
Year: 1975
Title: Evaluation of the Archaeological Resources and Potential Impact of the Proposed Removal and Recreation Developments at the Santa Fe Dam and Basin, Los Angeles Count
Affiliation: UCLA Archaeological Survey
Lead Agency: United States Department of The Army, Los Angeles District, Corps of En
Report Type(s): Archaeological survey (partial)
No. Pages:
Collections:
Disclosure:

Associated Resources

Notes

Location Info

USGS 7.5' Quads: AZUSA
BALDWIN PARK
Address:

Database Record Metadata

	Date	User	
Entered:	5/5/2008	jay	
Last Modified:			
IC Actions:	*Date*	*User*	*Action take*
	5/6/2008	jay	Appended records from old Surveys database.

South Central Coastal Information Center Detail Record: LA-03824

Citation Information

Authors: Anonymous
Year: 1995
Title: Cultural Resources Report for the Baldwin Park Operable Unit Water Delivery Plan
Affiliation: Greenwood and Associates
Lead Agency: U.S. Department of The Interior
Report Type(s): Archaeological survey
No. Pages:
Collections:
Disclosure:

Associated Resources

Notes

Location Info

USGS 7.5' Quads: BALDWIN PARK
Address:

Database Record Metadata

	Date	*User*	
Entered:	5/5/2008	jay	
Last Modified:			
IC Actions:	*Date*	*User*	*Action take*
	5/6/2008	jay	Appended records from old Surveys database.

South Central Coastal Information Center Detail Record: LA-10501

Citation Information

Authors: Toren, George A.
Year: 1994
Title: Cultural Resource Survey of Three Segments of the Proposed San Gabriel Valley Water Reclamation Project, Los Angeles County, California
Affiliation: Greenwood and Associates
Lead Agency: CH2M Hill
Report Type(s): Archaeological survey
No. Pages: 17
Collections: No
Disclosure: Not for publication

Associated Resources

Primary No.	*HRI No.*	*Trinomial*	*Name*
P-19-002207		CA-LAN-2207H	SFD-G&A-1H

Notes

Location Info

USGS 7.5' Quads: AZUSA
BALDWIN PARK
EL MONTE
Address:

Database Record Metadata

	Date	*User*
Entered:	7/21/2010	agarcia
Last Modified:	7/21/2010	agarcia
IC Actions:		

South Central Coastal Information Center Detail Record: LA-10532

Citation Information

Authors: Landis, Daniel G.
Year: 1993
Title: A Prelimiary Cultural Resources Overview for the Proposed San Gabriel Valley Reclamation Program, Los Angeles County, California
Affiliation: Greenwood & Associates
Lead Agency: CH2M HILL
Report Type(s): Other archaeological
No. Pages: 13
Collections:
Disclosure:

Associated Resources

Notes

Location Info

USGS 7.5' Quads: AZUSA
BALDWIN PARK
EL MONTE
Address:

Database Record Metadata

	Date	*User*
Entered:	8/4/2010	mgalaz
Last Modified:	8/4/2010	mgalaz
IC Actions:		

South Central Coastal Information Center Detail Record: LA-10896

Citation Information

Authors: Greenwood, David
Year: 2004
Title: Historic Properties Survey and Effects Report for the Gold Line Phase II Project (Pasaden to Montclair) Los Angeles and San Bernardino Counties, CA
Affiliation: Myra L. Franck/Jones & Stokes, Applied EarthWorks
Lead Agency: Los Angeles to Pasaden Blue Line Construction Authority & Federal Tran
Report Type(s): Historic survey
No. Pages: 88
Collections:
Disclosure:

Associated Resources

Primary No.	*HRI No.*	*Trinomial*	*Name*
P-19-000075		CA-LAN-75	Cienega Mud Springs
P-19-179337	030026		Dentist Office
P-19-179357	030046		Monrovia Santa Fe RR Depot
P-19-180728	034676		Atchinson Topeka & Santa Fe RR Station
P-19-183943	084925		Stuart Co Plant & Office Bldg
P-19-185548	034121		Sumner House
P-19-185894	034467		Corona-College Heights Lemon Packing Ho
P-19-186059	034633		Vortox Mfg Co
P-19-187944			Bridge #53C0596
P-19-189103			AT&SF RR bridge over Huntington Dr
P-19-189104			AT & SF RR bridge over San Gabriel River i
P-19-189105			AT & SF RR bridge over Santa Anita Wash
P-19-189106			AT & SF RR Bridge over Sawpit Wash
P-19-189107			AT & SF RR bridge over Alta Vista Wash
P-19-189108			AT & SF RR bridge over Foothill Blvd
P-19-189109			AT & SF RR bridge over San Dimas Wash
P-19-189110			AT & SF RR bridge over Rosemead Blvd
P-19-189111			AT & SF RR bridge Over Foothill Blvd
P-19-189112			Hartzler Shoes
P-19-189113			Isaac A McKinnon House
P-19-189114			
P-19-189115			
P-19-189116			
P-19-189117			
P-19-189118			
P-19-189119			Walter M Thompson House
P-19-189120			Daniel B Sneed House
P-19-189121			William Wesley Allen House
P-19-189122			San Dimas Lumber Co
P-19-189123			
P-19-189124			The John & Anna Billhamer House
P-19-189125			
P-19-189126			
P-19-189127			Robert A Johnson House
P-19-189128			
P-19-189129			Sylvester & Clotilde Regalado House
P-19-189130			Anthony & Jone Gabriel House
P-19-189131			William & Margaret Humphrey House
P-19-189132			Jim's Market
P-19-189133			
P-19-189134			
P-19-189135			The Elmer & Lydia Emerick House
P-19-189136	154675		William M Martin House
P-19-189137			Mark & Maxine Putnam House
P-19-189138			Clemente Rivas House
P-19-189139			Leavelle F Johnson House

P-19-189140		
P-19-189141		
P-19-189142		Fannie A Salisbury House
P-19-189143		
P-19-189144		
P-19-189145		Lady Bug Junction
P-19-189146		Lady Bug Junction
P-19-189147		Ace Hardware
P-19-189148		Sycamore Groves Inc, Bldg
P-19-189149		William & Rhoda Murphy House
P-19-189150		California Citrus Union Packing Headquarte
P-19-189151		Maust House
P-19-189152		Bessie Brooks House
P-19-189153		Alice S Staley House
P-19-189154		V & P Auto Body & Glass
P-19-189155		Betty Svenson House
P-19-189156		John C Whitmer House
P-19-189157		
P-19-189158		Virginia Earl Ayers House
P-19-189159		Marvin & Barbara Moon House
P-19-189160		
P-19-189161		William Ethel Kirkland House
P-19-189162		John Abbott House
P-19-189163		
P-19-189164		George Greitmann House
P-19-189165		
P-19-189166		Clyde M Pritchett House
P-19-189167		August Friedrich House
P-19-189168		
P-19-189169		Fair & Anna Hall House
P-19-189170		
P-19-189171	180387	So Cal Water Co Bldg
P-19-189172		Robert D Devine House
P-19-189173		Donald Mortimer House
P-19-189174		Glendora Citrus Assn
P-19-189175		Charles & Josephine Camp House
P-19-189176		Van de Kamp's Restaurant
P-19-189177		Soluble Plant Nutrients Co LTD
P-19-189178		Azusa Foothill Citrus Assn Packing House
P-19-189179		Durrel House, Azusa Historical Museum
P-19-189180		Marry Weigard & Anna Hadner House
P-19-189181		Margaret Woods House
P-19-189182		Juan B Gutierrez House
P-19-189183		Bibiana Sarinano House
P-19-189184		Mrs D C Hyer House
P-19-189185		Lorenzo & Sidonia Garcia House
P-19-189186		Orlando Streshley House
P-19-189187		Pomona College-Kenyon House
P-19-189188		Henry Nunez Real Estate Co
P-19-189189		Fruit Products of America
P-19-189190		
P-19-189191		Lois M Hastings Property
P-19-189192		Duarte/Arcadia Bldg Material Co
P-19-189193		Café de Lilly
P-19-189194		
P-19-189195		Re-Max Real-Estate Office
P-19-189196		Arroyo Plumbing Inc
P-19-189197		Omni Facility Group
P-19-189198		Arcadia Party Rentals
P-19-189199		DG Total Fitness
P-19-189200	034743	Pomona Transit Center Depot Bldg

P-19-189201		San Dimas Santa Fe RR Depot
P-19-189202		City of Hope Visitors Center
P-19-189203		Temple Beth Hatikvah
P-19-189204		San Dimas Lemon Assn Packing House
P-19-189205	113961	Azusa Santa Fe RR Depot
P-19-189206		So Cal Fruit Exchange
P-19-189207		Orange House Refrigerated Fruit Storage B
P-19-189208		La Verne Orange Assn Bldg
P-19-189209	128007	Saga Motor Hotel
P-19-189210		Univ of La Verne, Central Service Office
P-19-189211		La Verne Lemon Assn Bldg

Notes

Location Info

USGS 7.5' Quads: AZUSA
BALDWIN PARK
GLENDORA
MT WILSON
ONTARIO
SAN DIMAS

Address:

Database Record Metadata

	Date	*User*
Entered:	6/23/2011	mgalaz
Last Modified:	9/22/2011	mgalaz
IC Actions:		