

1.0 INTRODUCTION AND EXECUTIVE SUMMARY

1.1 Introduction

To help the Los Angeles Department of Water and Power (LADWP) comply with South Coast Air Quality Management District (SCAQMD) Regulations and improve in-Basin (South Coast Air Basin [Basin]) power reliability, LADWP is proposing modifications to its Valley Generating Station (VGS), which is located in the Sun Valley area of the City of Los Angeles. It is envisioned that the proposed project, consistent with the intent of the SCAQMD's Regulation XX - Regional Clean Air Incentives Market (RECLAIM), will achieve an overall decrease in oxides of nitrogen (NO_x) emissions. This Environmental Impact Report (EIR) has been prepared to assess the environmental impacts associated with the facility modifications, which encompass the proposed project, as required under the California Environmental Quality Act (CEQA).

1.2 Executive Summary

CEQA Guidelines § 15123 requires that an EIR include a brief summary of the proposed actions and their consequences. In addition, areas of controversy including issues raised by the public must also be included in the executive summary. This ~~Draft~~Final EIR consists of the following chapters: Chapter 1 – Introduction and Executive Summary; Chapter 2 – Project Description; Chapter 3 – Existing Setting, Chapter 4 – Potential Environmental Impacts and Mitigation Measures; Chapter 5 – Project Alternatives; Chapter 6 – Cumulative Impacts; Chapter 7 – Organizations and Persons Consulted, Chapter 8 – References; and various appendices. The following subsections briefly summarize the contents of each chapter.

Chapter 1 includes a discussion of the need for the proposed project, describes general CEQA requirements, explains the rationale for preparing an EIR, and identifies intended uses of this CEQA document. Finally, Chapter 1 provides summaries of the remaining chapters that comprise this ~~Draft~~Final EIR.

1.2.1 Project Need

Regulation XX - RECLAIM, is an alternative regulatory program designed and adopted by the SCAQMD's Governing Board on October 15, 1993 to reduce NO_x and sulfur dioxide (SO₂) emissions (collectively known as oxides of sulfur or SO_x) from stationary sources in the Basin while lowering the cost of attaining clean air through the use of market incentives. RECLAIM was designed to ensure protection of public health, improve air quality at least equivalent to Air Quality Management Plan (AQMP) control measures, provide effective enforcement, lower implementation costs, and result in minimal job impacts.

RECLAIM regulates emissions on a mass basis rather than limiting emission rates. The goal of RECLAIM is to provide facilities with added flexibility in meeting emission reduction requirements while lowering the cost of compliance. The emission reduction goals are established in the form of declining annual allocations. Total allocations are reduced each year from 1994 through 2003 (allocations remain constant after 2003) to achieve equivalent emissions reductions as would

have been achieved through implementation of SCAQMD rules and 1991 AQMP control measures subsumed by RECLAIM. Each facility may determine for itself the most cost-effective approach to reducing emissions, including purchasing emission credits from facilities that have reduced emissions below their target levels. Facilities comply with RECLAIM by installing control equipment that limits their annual NO_x and or SO_x emission to below or at their annual allocations or purchasing additional RECLAIM Trading Credits (RTCs) to account for any exceedances above their annual allocations.

Facilities that are able to reduce annual emissions below their allocation levels have the option to sell the excess portion of their allocations to facilities that have a need for additional allocations. Rigorous emissions monitoring and recordkeeping is essential to ensure compliance with RECLAIM's emissions control requirements. Highly accurate emissions monitoring equipment (e.g., continuous emissions monitoring systems or CEMS) is required for monitoring emissions from the sources accounting for approximately 80 percent of RECLAIM emissions. In addition, sources are required to maintain daily, monthly, and quarterly emissions records and to reconcile their emissions with their allocations on a quarterly basis.

To help LADWP comply with its annual RECLAIM allocations for future years and improve in-Basin power reliability, LADWP is proposing modifications to the VGS, which is located in the jurisdiction of the SCAQMD (Figure 1.1-1).

1.2.2 Purpose and Authority

1.2.2.1 Purpose

In general, an EIR is an informational document that informs a public agency's decision-makers and the public of the significant adverse environmental effects of a project, identifies possible ways to minimize the significant effects, and describe reasonable alternatives to the project (CEQA Guidelines §15121). A public agency's decision-makers must consider the information in a CEQA document prior to making a decision on the project. Accordingly, this ~~Draft~~Final EIR is intended to: (a) provide the lead agency, responsible agencies, decision makers, and the general public with information on the environmental effects of the proposed project; and, (b) be used as a tool by decision makers to facilitate decision making on the proposed project.

VGS Project Site VGS Project Site

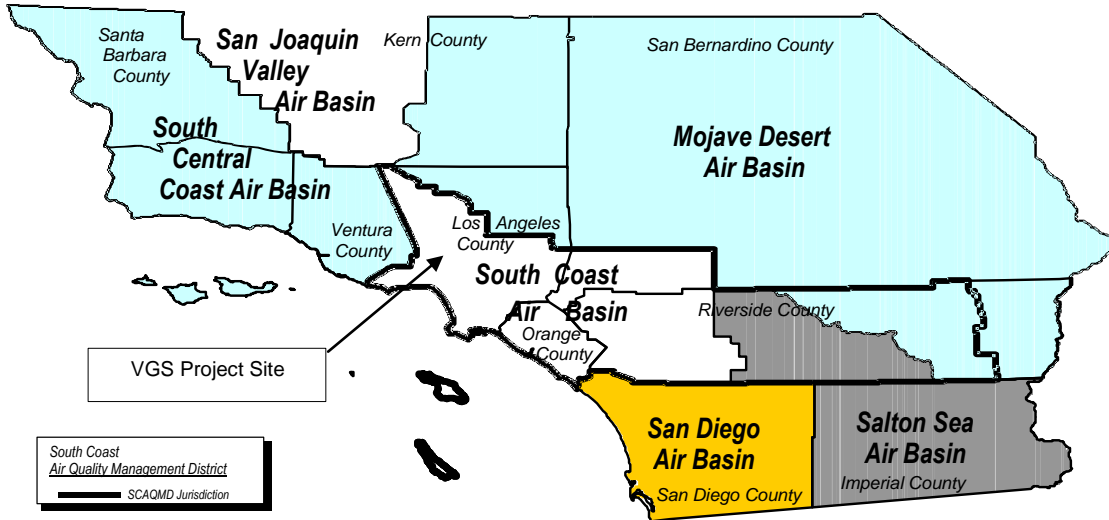


Figure 1.1-1 South Coast Air Quality Management District

1.2.2.2 Authority

CEQA applies to proposed “projects” initiated by, funded by, or requiring discretionary approvals from State or local government agencies. The proposed installation of a combined cycle system including gas combustion turbine generators (CTGs), a new steam turbine generator (STG), heat recovery steam generators (HRSGs) and associated selective catalytic reduction (SCR) systems, cooling towers and ancillary equipment constitutes a “project” as defined by CEQA (California Public Resources Code §21000 et seq.). However, where a project requires approvals from more than one public agency, CEQA requires one of these public agencies to serve as the “lead agency.” Pursuant to CEQA Guidelines §15367, “‘Lead Agency’ means the public agency which has the principal responsibility for carrying out or approving a project.” As this proposed project is being initiated to comply with air quality regulations (e.g., RECLAIM), the SCAQMD is the appropriate lead agency.

The California Energy Commission (CEC) was also considered for the role of lead agency since the proposed project involves modifications at a power-generating facility. However, the proposed project is not subject to the provisions of the Warren-Alquist Act (WAA), since it will not exceed the maximum net generating increase that would require compliance with the WAA.

The VGS currently consists of four power generating units (Units 1 through 4) with a net generating capacity of 526 megawatts (MW). The net generating capacity of the proposed project

is 532 MW and the net generating capacity of the peaking plant under construction at VGS (part of a project previously evaluated in accordance with CEQA) is 42 MW. The total net generating capacity of 574 MW from the proposed project and the peaking plant under construction is less than the increase in capacity that would require compliance with the WAA.

Units 1 and 2 are already decommissioned. Within 120 days of the date of establishing successful commercial operation of the new combined cycle generating facility (CCGF), LADWP will apply for non-operational status per SCAQMD Rule 2102 for Units 3 and 4. LADWP will disconnect fuel feed lines and place flanges at both ends of the disconnected lines, or remove a major component of the units necessary for their operation.

As the lead agency for this project, the SCAQMD must complete an environmental review to determine if the proposed project could create significant adverse environmental impacts. To fulfill the purpose and intent of CEQA Guidelines §§15102 and 15103, a Notice of Preparation and Initial Study (NOP/IS), which serve as the basis for the analysis in this [Draft/Final](#) EIR (included herein as Appendix A), was distributed to responsible agencies and interested parties for a 30-day review and comment period that ended June 5, 2001. The NOP/IS identified potential adverse impacts to the following six environmental topic areas: air quality, geology/soils, hazards and hazardous materials, hydrology/water quality, noise, and transportation/traffic. It should be noted that no significant water supply impacts from the proposed project were identified during the NOP/IS analysis; therefore, only potential water quality issues will be assessed in this [Draft/Final](#) EIR.

Four comment letters were received during the public comment period for the NOP/IS. The SCAQMD's responses to comments submitted on the NOP/IS are presented in Appendix B of this [Draft/Final](#) EIR.

1.2.3 Scope of EIR and Format

1.2.3.1 Scope of EIR

CEQA requires that the environmental impacts of a proposed project be evaluated and feasible methods to reduce, avoid, or eliminate identified potentially significant adverse impacts of the project be considered. To fulfill the purpose and intent of CEQA, the SCAQMD, as the lead agency, directed the preparation of this [Draft/Final](#) EIR, which addresses the potential environmental impacts associated with LADWP's electrical generating facility modifications.

It should be noted that the Final Environmental Assessment for the RECLAIM program (SCAQMD, 1993) analyzed potential adverse environmental impacts associated with various add-on pollution controls expected to be used to comply with RECLAIM. In particular, the Final Environmental Assessment for the RECLAIM program incorporated by reference previously prepared environmental analyses conducted for specific add-on pollution controls (e.g., selective catalytic reduction) that could be used by power generating facilities to comply with NO_x control

requirements. To the extent that these analyses adequately address the potential environmental impacts associated with this project, no further analysis will be required (CEQA Guidelines §15152(d)).

1.2.3.2 Intended Uses of this EIR

Because information regarding some of the potential environmental impacts associated with potential construction-related activities was difficult to ascertain or not available for inclusion in this ~~Draft~~Final EIR, some of the environmental impact analyses, although a “worst-case,” are general or qualitative in nature. In the instances where specific information is available, the environmental impacts are quantified to the level of detail warranted by the information available.

Additionally, CEQA Guidelines §15124(d)(1) requires a public agency to identify the following specific types of intended uses:

- A list of the agencies that are expected to use the EIR in their decision-making;
- A list of permits and other approvals required to implement the project; and
- A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

To the extent that local public agencies, such as cities, county planning commissions, etc., are responsible for making land use and planning decisions related to the proposed project, they could possibly rely on this EIR during their decision-making process. See Chapter 2, Table 2.5-1 for a list of public agencies’ approvals that may be required.

1.3 Chapter 2 Summary – Project Description

To help LADWP comply with its annual RECLAIM allocations for future years and improve in-Basin power reliability, LADWP has entered into a Compliance Agreement with the SCAQMD to repower the VGS. The Compliance Agreement requires that LADWP abate its violation of Rule 2004 by implementing certain mitigation actions. The repowering of the VGS is one of those actions. The Compliance Agreement also specified the timeframe for the proposed project. Construction activities, including demolition, site preparation and construction, are scheduled to begin in the spring of 2002 and continue through the summer of 2003. The modifications to the VGS are briefly discussed below.

The LADWP is proposing to install a new CCGF at an existing generating station. The CCGF will replace four existing utility boilers with two CTGs, a new STG, two HRSGs and associated SCR systems, cooling towers, and ancillary equipment. Two new 20,000-gallon aboveground storage tanks (ASTs) will be constructed to increase the ammonia storage capacity at the facility. In addition, an existing fuel oil AST will be converted to distillate¹ service.

¹ The terms "diesel" and "distillate" will be used interchangeably throughout this EIR. LADWP has proposed the use of distillate for this project, however, will be required to use low sulfur fuel as a mitigation measure for SO_x emissions. The only low sulfur liquid fuel defined in the SCAQMD Rules and Regulations is low sulfur diesel. Chemically, diesel fuel is a

1.4 Chapter 3 Summary – Existing Setting

Pursuant to the CEQA Guidelines §15125, Chapter 3 – Existing Setting, includes a description of the existing environment only for those environmental areas that could be adversely affected by the proposed project. The following subsections briefly highlight the existing settings for the six identified environmental areas that could potentially be adversely affected when implementing the proposed project.

1.4.1 Air Quality

Over the last decade and a half, there has been significant improvement in air quality in the SCAQMD's jurisdiction. Nevertheless, several air quality standards are still exceeded frequently and by a wide margin. Of the National Ambient Air Quality Standards (NAAQS) established for six criteria pollutants (ozone, lead, SO₂, nitrogen dioxide [NO₂], carbon monoxide [CO], and particulate matter less than 10 microns in diameter [PM₁₀]), the area within the SCAQMD's jurisdiction is in attainment with the state and national ambient air quality standards for SO₂, NO₂, and lead. Chapter 3 provides a brief description of the existing air quality setting for each criteria pollutant, as well as the human health effects resulting from each pollutant for the project site. The Air Quality section also includes a discussion and regional inventory of toxic air contaminants (TACs).

1.4.2 Geology/Soils

Southern California is characterized by a variety of geographic features that form the basis for subdividing the region into several geomorphic provinces. The proposed project site is located within the northwestern portion of the Peninsular Range Province, a major physiographic and tectonic province characterized by a prevailing northwesterly orientation of structural geologic features. This general area is northwest-trending lowland plain approximately 50 miles long and 20 miles wide. Native soils in the VGS area are reportedly part of the Hanford Association, which is characterized by soils that are well-drained, coarse sandy loam, and underlain by gravelly loam.

1.4.3 Hazards and Hazardous Materials

Potential hazard impacts may be associated with the production, use, storage, and transport of hazardous materials. For the purposes of this ~~Draft~~Final EIR, the term hazardous materials refer to both hazardous materials and hazardous wastes. Hazardous materials may be found at industrial production and processing facilities. Examples of hazardous materials used on a consumable basis include petroleum, solvents, and coatings. Currently, hazardous materials are transported throughout the SCAQMD's jurisdiction in great quantities via all modes of transportation including rail, highway, water, air and pipeline.

distillate meeting an ASTM specification. Generally, the term "distillate" will be used when referring to fuel storage, and "diesel" used when referring to combustion.

Hazard concerns are also related to the risks of explosions, the release of hazardous materials, or exposure to air toxics. State law requires detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of to prevent or mitigate injury to health or the environment in the event that such materials are accidentally released. Federal laws, such as the Emergency Planning and Community-Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act or SARA) impose similar requirements.

During 1998, the counties of Orange, Riverside, San Bernardino and Los Angeles reported a total of 1,726 hazardous material releases, while the statewide total was 5,811. The breakdown is as follows: 940 releases in Los Angeles County, 222 releases in Orange County, 306 releases in Riverside County, and 258 in San Bernardino County.

Releases of hazardous materials, including aqueous ammonia, have the potential for harmful effects on workers and the public. Causes of these releases may include plant upsets; leaks in seals; pipeline failures; vehicular traffic accidents; and failures during ammonia delivery, such as hose leaks.

1.4.4 Hydrology/Water Quality

Extensive urbanization in the southern California area has resulted in significant alteration and deterioration of both the surface and subsurface hydrologic environments. The VGS is situated in the San Fernando Valley, which is located in the Los Angeles River Watershed. The principal drainage element in the area of the proposed project site is the Tujunga Wash Flood Control Channel, which is a major tributary of the Los Angeles River.

The analysis conducted for the Initial Study concluded that there would be no significant water supply impacts from the proposed project. Therefore, Chapter 3 only describes the hydrologic setting for the VGS site as it relates to water quality.

1.4.5 Noise

Chapter 3 provides a brief description of the noise standards and ordinances of the jurisdiction in which the VGS facility is located and the existing noise environment at the VGS and surrounding areas. Noise is usually defined as sound that is undesirable because it interferes with speech communication and hearing, is intense enough to damage hearing, or is otherwise annoying (unwanted sound).

The project site is located within the City of Los Angeles and is subject to noise ordinances of the City of Los Angeles Municipal Code and the noise limitation guidelines presented in the Noise Element of the General Plan of the City of Los Angeles. The ambient noise environment at the VGS is generally characterized by nearby industrial and commercial land uses and the vehicular traffic on nearby roadways. Community noise levels typically change continuously during the day and also exhibit daily, weekly, and yearly patterns.

1.4.6 Transportation/Traffic

The transportation network in the SCAQMD's jurisdiction is a complex intermodal system consisting of roads, highways, public transit, railroads, airports, seaports, and intermodal

terminals. Regional transportation facilities in the vicinity of the proposed project site provide excellent accessibility to the entire southern California region. The VGS site is located northwest of the Golden State Freeway (Interstate 5) and Hollywood Freeway (Route 170) interchange. The public transit system includes local shuttles, public bus operations, rail rapid transit, commuter rail services, and interregional passenger rail service.

1.5 Chapter 4 Summary – Potential Environmental Impacts and Mitigation Measures

CEQA Guidelines §15126.2(a) requires the following: “An EIR shall identify and focus on the significant environmental effects of the proposed project... Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects.”

Table 1.5-1 presents a summary of the identified potential adverse environmental impacts and the level of significance for each environmental topic as they relate to the proposed project. The following subsections briefly summarize the analysis of potential adverse environmental impacts from the adoption and implementation of the proposed project.

**Table 1.5-1
Summary of Potential Environmental Impacts from the Project,
Project Alternatives or Cumulatively with Other Projects**

| Issue Area | Potential Impacts from the Project | Level of Significance | | | |
|---------------|--|-----------------------|-------------|---|------------|
| | | Project | Alternative | | Cumulative |
| | | | A | B | |
| Air Quality | Construction emissions | S | N | S | S |
| | Increased chronic non-cancer and cancer risk from air toxic emissions | N | N | N | N |
| | Acute risk from air toxic emissions | N | N | N | N |
| | Operation criteria emissions of carbon monoxide (CO) and particulate matter (PM10) | S | N | S | S |
| | Operation emissions of oxides of sulfur (SO _x) and volatile organic compounds (VOCs) | M | N | M | M |
| | Operational emissions of nitrogen oxides (NO _x) | N | N | N | N |
| Geology/Soils | Risk of slope instability | M | N | M | N |

Chapter 1 – Introduction and Executive Summary

| | | | | | |
|-----------------------------|---|---|---|---|---|
| Hazards | Increased risk from catastrophic failure of storage tanks, tank cars, and increased use of hazardous materials. | S | N | S | N |
| Hydrology/ Water Quality | Increased wastewater discharge | N | N | N | N |
| | Decreased surface water quality | N | N | N | N |
| Noise | Increase in noise from construction or operation | N | N | M | N |

Table 1.5-1 (Concluded)
Summary of Potential Environmental Impacts from the Project,
Project Alternatives or Cumulatively with Other Projects

| Issue Area | Potential Impacts from the Project | Level of Significance | | | |
|----------------------------|---------------------------------------|-----------------------|---|---|------------|
| | | Alternative | | | |
| | | Project | A | B | Cumulative |
| Transportation/ Traffic | Increased traffic during construction | S | N | S | S |
| | Increased traffic during operation | N | N | N | N |

Level of Significance:

N – No significant impacts from the project

M – Significant impacts before mitigation; no significant impacts after mitigation

S – significant impacts even after mitigation

Alternatives:

A – No project

B – Use of dry cooling

Note:

Twelve issue areas were eliminated in the Initial Study as having no potential for significant environmental impacts: aesthetics, agriculture resources, biology, cultural, energy, land use/planning, mineral resources, public services, population/housing, recreation, solid and hazardous waste, and water supply.

1.5.1 Air Quality

The implementation of the proposed project is expected to allow LADWP to meet its future RECLAIM annual NO_x allocation requirements. However, there are short-term, significant adverse air quality impacts from construction-related activities and long-term adverse air quality impacts from operational activities. The air quality impact analysis revealed that the construction activities will result in significant adverse air quality impacts based on maximum peak daily emissions of criteria pollutants. In addition, the analysis of operational impacts identified significant air quality impacts associated with maximum peak daily emissions of criteria pollutants being emitted from the proposed equipment. However, project-related operational emissions do not cause a significant adverse impact to ambient air quality concentrations for any criteria pollutant. Further, no significant adverse impacts due to toxic air contaminant emissions associated with the operation of the project are expected.

1.5.2 Geology / Soils

As the proposed project activities will take place in areas that are seismically active, the analysis in Chapter 4 concluded that the potential for significant adverse geology/soils impacts is limited to slope instability related to the nearby pond. However, with mitigation, this impact is reduced to a level of insignificance.

1.5.3 Hazards and Hazardous Materials

The hazards impacts analysis in Chapter 4 examines the operational hazards associated with the pipeline transport, handling, and storage of aqueous ammonia, which will be used in the SCR systems to reduce NO_x emissions. The analysis also evaluated potential hazard impacts from the additional use of natural gas. The analysis concluded that hazard impacts associated with the use of aqueous ammonia and the additional use of natural gas will be significant.

1.5.4 Hydrology / Water Quality

Potential impacts to surface and groundwater quality from the implementation of the proposed project are evaluated in Chapter 4. The analysis concluded that hydrology/water quality impacts from the proposed project are insignificant.

1.5.5 Noise

The noise evaluation examined the potential increase in noise levels associated with the installation and operation of the proposed project. Considered in this analysis was noise potentially generated from construction and demolition associated with installation of the new units, aboveground ammonia storage tanks, construction crew and delivery traffic, and operation of the facility. The analysis included in Chapter 4 concluded that noise impacts associated with the proposed project will be insignificant.

1.5.6 Transportation / Traffic

The additional trips caused by construction workers involved in the construction activities are presented and evaluated in Chapter 4. Additionally, this section analyzes the incremental increase in traffic associated with aqueous ammonia delivery trips. The analysis concluded that transportation/traffic impacts associated with the construction of the proposed project will be significant in the afternoon peak hour at one intersection.

1.5.7 Environmental Impacts Found Not To Be Significant

The NOP/IS for the proposed project, which was released to the public on May 4, 2001, included an environmental checklist of approximately 17 environmental topics. The IS concluded that the project would have no significant direct or indirect adverse effects on the following environmental areas as a result of implementing the proposed project:

- Aesthetics
- Agriculture Resources
- Biological Resources
- Cultural
- Energy
- Land Use / Planning
- Mineral Resources
- Population / Housing
- Public Services
- Recreation
- Solid and Hazardous Waste
- Water Supply

1.5.8 Other CEQA Topics

CEQA requires EIRs to address the potential for irreversible environmental changes and growth-inducing impacts. Analysis of the proposed project concluded that it would not result in significant adverse irreversible environmental changes or the irretrievable commitment of resources, or foster economic or population growth or the construction of additional housing.

1.6 Chapter 5 Summary – Project Alternatives

Chapter 5 provides a discussion of alternatives to the proposed project as required by CEQA. The alternatives analyzed include measures for attaining the objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative. Table 1.6-1 presents a matrix that lists the significant adverse impacts as well as the mitigation measures identified for the proposed project and alternatives for the environmental topics analyzed.

**Table 1.6-1
Comparison of Adverse Environmental Impacts Associated with
Project Alternatives to the Proposed Project**

| Environmental Topic | Proposed Project | Alternative A (No Project) | Alternative B (Dry Cooling) | Mitigation Measures | |
|----------------------------|----------------------------------|---|--|---|--|
| Air Quality, Construction | Significant | Not significant | Significant, equivalent to proposed project | Additional watering in addition to complying with Rule 403, proper equipment maintenance; use low sulfur diesel fuel; evaluate emission reduction retrofit technologies for construction equipment. | |
| Air Quality, Operation | Significant | Not significant, less than proposed project | Significant, equivalent to proposed project | Low sulfur diesel; VOC offsets | |
| Geology/Soils | Mitigated to insignificant level | Not significant, less than proposed project | Mitigated to insignificant level, equivalent to proposed project | Foundation set back from pond at a minimum of 200 feet | |
| | Hazards and Hazardous Materials | Significant | Not significant, less than proposed project | Significant, equivalent to proposed project | Perform pre-start Job Safety Analysis; Manual shutdowns on tanks |
| | Hydrology/Water Quality | Not significant | Not significant, less than proposed project | Not significant, less than proposed project | None Required |
| | Noise | Not significant | Not significant, less than proposed project | Mitigated to insignificant level, equivalent to proposed project | None Required |
| Transportation/ Traffic | Significant during construction | Not significant, less than proposed project | Significant during construction, equivalent to proposed project | None identified | |

1.7 Chapter 6 Summary – Cumulative Impacts

Projects with the potential to have cumulative impacts with the proposed project were identified. These projects and associated cumulative impacts relative to the proposed project are discussed in Chapter 6. No significant cumulative impacts beyond those impacts identified with the proposed project are anticipated to occur.

1.8 Chapters 7 and 8 Summary –Organizations and Persons Consulted and References

Information on the organizations and persons consulted and references cited is presented in Chapters 7 and 8 respectively.