

1.0 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, improve in-Basin (South Coast Air Basin [Basin]) power reliability, and participate in the California Independent System Operator (“Cal-ISO”), LADWP is proposing modifications to three generating stations located in the Basin. 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 from the affected facilities. This Environmental Impact Report (EIR) has been prepared to assess the environmental impacts associated with the modifications at LADWP’s three generating stations, which encompass the proposed project, as required under the California Environmental Quality Act (CEQA).

1.2 Executive Summary

CEQA Guidelines §15123 requires an EIR to 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 – Legislative Authority and Executive Summary; Chapter 2 – Project Description; Chapter 3 – Existing Setting, Chapter 4 – Environmental Impacts and Mitigation Measures; Chapter 5 – Project Alternatives; Chapter 6 – Cumulative Impacts; Chapter 7 – Persons and Organizations Contacted; 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 includes 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 dioxides (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 meet all state and federal requirements for clean air programs and a variety of performance criteria to ensure protection of public health, air quality improvement at least equivalent to Air Quality Management Plan (AQMP) control measures, effective enforcement, lower implementation costs, and 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 reduce 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 purchase 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 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 eighty 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, improve in-Basin power reliability, and participate in the Cal-ISO by supplying excess electrical power on a daily basis during the summer, thereby reducing the risk of blackouts for the state, LADWP is proposing modifications to three generating stations (e.g., Harbor, Scattergood, and Valley) located in the Basin (see Figure 1.1-1). It is envisioned that the proposed project, consistent with the intent of RECLAIM, will achieve an overall decrease in NO_x emissions from the affected facilities.

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 generally of the significant 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.

**Figure 1.1-1
South Coast Air Quality Management District**



1.2.2.2 Authority

CEQA applies to “projects” proposed to be undertaken or requiring approval by State and local government agencies. The proposed installation of new electric power generation and various pollution control equipment at LADWP’s three generating stations to comply with RECLAIM, among other goals, constitutes a “project” as defined by CEQA (Cal. Public Resources Code [PRC] §§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 project is being undertaken to comply with air quality regulations (e.g., RECLAIM), LADWP and the SCAQMD have concluded that the SCAQMD is the appropriate lead agency.

As the lead agency for this project, the SCAQMD must complete an environmental review to determine if the proposed project could create significant 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 this [DraftFinal](#) EIR (included herein as Appendix A), was distributed to responsible agencies and interested parties for a 30-day review and comment period ending November 3, 2000. The NOP/IS identified potential adverse impacts to the following nine environmental topic areas: air quality, biological resources, energy, geology/soils, hazards and hazardous materials, hydrology/water quality, noise, solid/hazardous waste and, transportation/traffic. The SCAQMD received six comment letters 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 [DraftFinal](#) 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 [DraftFinal](#) EIR, which addresses the potential environmental impacts associated with LADWP's electrical generating facilities modifications.

1.2.3.2 Scope of this Project

The SCAQMD is evaluating the potential adverse impacts from the actions at each project site that comprise this project in a single EIR rather than three separate EIRs for the following reasons: projects are being undertaken by a single public entity; the actions will occur within relatively within the same time period; the actions are being undertaken to comply with a single regulation (e.g., RECLAIM); and the actions undertaken are similar in nature (e.g., installation of electrical generating equipment, pollution control equipment, and the use, storage, and handling of aqueous ammonia). This [DraftFinal](#) EIR for the proposed project not only includes all of the potential site-specific impacts at each facility, but addresses the cumulative impacts from all three project sites undertaking construction and operational activities simultaneously.

It should be noted that the Final Environmental Assessment for the RECLAIM program (October 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)).

1.2.3.3 Intended Uses of this EIR

Because information regarding some of the potential environmental impacts associated with potential construction-related impacts 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) require 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

As mentioned earlier, to help LADWP comply with its annual RECLAIM Allocations for future years, improve in-Basin power reliability, and participate in the Cal-ISO at the earliest possible time, LADWP has entered into a compliance agreement with the SCAQMD. The agreement requires that LADWP begin equipment installation and modifications at the three generating facilities starting early in 2001, such that affected power generating units will be in-use by summer 2001. The modifications that will be conducted at the three LADWP power generating facilities, all of which are subject to the SCAQMD’s RECLAIM Program, are briefly discussed below.

1.3.1 Harbor Generating Station

LADWP is proposing to install five 47-MegaWatt (MW) combustion turbines (CTs) each with selective catalytic reduction (SCR) system at the Harbor Generating Station (HGS). Aqueous ammonia is used in the associated SCR systems to reduce NO_x emissions. A pipeline will be installed to transport the aqueous ammonia from existing aboveground storage tanks to the new CTs. Existing petroleum product storage tanks at the HGS Site will be decommissioned and removed to make room for the new equipment.

1.3.2 Scattergood Generating Station

LADWP is proposing to install SCR systems on three existing units to reduce NO_x emissions at the Scattergood Generating Station (SGS). Aqueous ammonia is used in SCR systems to reduce

NO_x emissions. As there is currently no ammonia storage capacity at SGS, the project includes installation of three 30,000-gallon aqueous ammonia storage tanks.

1.3.3 Valley Generating Station

LADWP is proposing to install one 47-MW CT with SCR at the Valley Generating Station (VGS). Aqueous ammonia is used in the SCR system to reduce NO_x emissions. As there is currently no ammonia storage capacity at VGS, one 20,000-gallon aqueous ammonia storage tank will also be constructed. Existing, out-of-service cooling towers at the VGS site will be demolished and removed to make room for the new equipment.

1.4 Chapter 3 Summary – Existing Setting

Pursuant to the CEQA Guidelines §15125, Chapter 3 – Existing Setting, includes descriptions of 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 nine identified environmental areas that could potentially be adversely affected when implementing the proposed project. It should be noted that the NOP/IS identified nine environmental impact areas (e.g., Air Quality, Biology, Energy, Geology/Soils, Hazards/Hazardous Materials, Noise, Solid/Hazardous Waste and Traffic/Transportation) that could be significantly impacted by the implementation of the proposed project. However, based on comments received on the NOP/IS, the SCAQMD has also evaluated Cultural Resources for potential adverse significant impacts.

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 each project site.

1.4.2 Biological Resources

The biological characteristics of much of the Los Angeles Basin have been drastically altered by human activities. The vegetation of the region now consists predominantly of landscape species, crop species, and ruderal vegetation. Ruderal vegetation is defined as vegetation that survives on disturbed habitat. Remnant native plant communities are typically restricted to areas removed from intense human activity.

Principal habitats for terrestrial fauna in the vicinity of the project area include landscaped vegetation; ruderal vegetation; riparian vegetation on the margins of streams, channels, and other

water bodies; and manmade facilities and structures. The terrestrial fauna is dominated by resident and migratory birds, which are able to use a variety of urban habitats.

1.4.3 Cultural Resources

The historic territory of the Native American group known as the Gabrielino or Tongva included the Basin. Prior to the arrival of the Tongva/Gabrielino's Shoshonean speaking ancestors into southern California, the archaeological records indicate that sedentary populations occupied the coastal regions of California more than 9,000 years ago.

1.4.4 Energy

Based on the evaluation of project-related impacts to energy sources conducted as part of the NOP/IS, it was determined that the only potentially significant impact to energy sources would be associated with the use of gasoline and diesel fuel during the proposed project construction-related activities. Liquid petroleum fuels include fuel oil, gasoline, and diesel fuel. The majority of stationary source combustion equipment within the SCAQMD's jurisdiction uses natural gas as the primary combustion fuel. Some types of stationary combustion equipment such as boilers, heaters, and internal combustion equipment may use fuel oil as a backup during natural gas curtailments or in emergency situations. Gasoline and diesel fuels are consumed primarily as a transportation fuel in all vehicle classes.

California is the third largest consumer of gasoline in the world. In 1997, Californians used more than 14 billion gallons of gasoline a year and another two billion gallons of diesel fuel. California is a major producer of gasoline products.

1.4.5 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 sites are all 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. The lowland surface of the Los Angeles basin slopes gently southward and westward to the Pacific Ocean.

1.4.6 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.

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.

1.4.7 Hydrology/Water Quality

Total water demand within the district was approximately 4.22 million-acre feet (MAF) or about 1.4 trillion gallons in fiscal year 1995 (July 1994 through June 1995). About two-thirds of that demand occurred in the service area of the Metropolitan Water District of Southern California (MWD). The MWD's service area includes southern Los Angeles County, all of Orange County, the western portion of Riverside County, and the Chino Basin in southwestern San Bernardino County. The MWD supplied 1.57 MAF and the Los Angeles Department of Water and Power, the other major water supplier in southern California, supplied 0.55 MAF in the fiscal year 1995 (Rodrigo, 1996). The remaining 2.1 MAF were drawn from local water sources by local water districts within the MWD service area. About 89 percent of water consumed in the MWD region goes to urban uses with the rest going to agriculture.

The State Water Resources Control Board (SWRCB) and the nine regional water quality control boards (RWQCB) are responsible for protecting surface and groundwater supplies in California, regulating solid waste disposal, and requiring cleanup of hazardous conditions. In particular, the SWRCB establishes water-related policies and approves water quality control plans, which are implemented and enforced by the RWQCBs. Five RWQCBs have jurisdiction over areas within the boundaries of the District. These agencies also regulate discharges to state waters through federal National Pollution Discharge Elimination System (NPDES) permits. Discharges to publicly owned treatment works (POTW) are regulated through federal pre-treatment requirements enforced by the POTWs.

1.4.8 Noise

Chapter 3 provides a brief description of the noise standards and ordinances of the jurisdiction in which each facility is located and the existing noise environment at the HGS, VGS, and SGS

project sites 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 three project sites are located within the City of Los Angeles. The facilities are 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 three project sites (SGS, HGS, and 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. To compare noise levels over different time periods, several descriptors have been developed. One descriptor is the equivalent sound level (Leq). The Leq is the equivalent steady-state A-weighted sound level that would contain the same acoustical energy as the time-varying A-weighted sound level during the same time interval. The hourly Leq is often used to describe peak-traffic noise.

1.4.9 Solid/Hazardous Waste

The estimated capacity of the Class II (industrial) and Class III (municipal) landfills within the District is approximately 111,198 tons per day. The wastes disposed at these facilities include residential wastes (trash and garbage produced by households), construction wastes, commercial and industrial wastes, home appliances and abandoned vehicles, and sludge residues (waste remaining at the end of the sewage treatment process). There are no Class I (hazardous) landfills located within the District. However, there are three Class I (hazardous) landfills located in California with an estimated total capacity of 23.3 million cubic yards.

1.4.10 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. The public transit system includes local shuttles, public bus operations, rail rapid transit, commuter rail services, and interregional passenger rail service. The railroad network includes an extensive system of private railroads and several publicly owned freight lines

1.5 Chapter 4 Summary – Potential Environmental Impacts and Mitigation Measures

CEQA Guidelines §15126(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 1.4-1 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 1.4-1
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	C	
Air Quality	Construction emissions	S	N	S	S	S
	Increased chronic non-cancer and cancer risk from air toxic emissions	N	N	N	N	N
	Acute risk from air toxic emissions	N	N	N	N	N
	Operation criteria emissions except VOC	S	N	S	S	S
	Operation emissions of volatile organic compounds (VOC)	M	N	M	M	M
Biological Resources	Impacts to species of special status	N	N	N	N	N
Cultural Resources	Ground disturbing activities to structures > 50 years of age	N	N	N	N	N
	Potentially encountering cultural resources during excavation	N	N	N	N	N
	Potentially encountering cultural resources during excavation	N	N	N	N	N
Energy	Increased use of energy resources	N	N	N	N	N
Geology/Soils	Risk of lateral spreading or loss of subsurface soil strength from liquefaction	M	N	M	M	N
Hazards	Increased risk from catastrophic failure of storage tanks, tank cars, and pipelines.	S	N	S	S	S
Hydrology/Water Quality	Increased water use	N	N	N	N	N
	Increased wastewater discharge	N	N	N	N	N
	Decreased surface water quality	N	N	N	N	N
Noise	Increase in noise from construction or operation	M	N	M	M	N
Solid/Hazardous Wastes	Increased disposal of hazardous and non-hazardous wastes	N	N	N	N	N
Transportation/Traffic	Increased traffic during construction	N	N	N	N	N
	Increased traffic during operation	N	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 – Construction of tank at HGS
 C – No demolition of existing AST and decommissioning of only one cooling tower at VGS

Note:
 Seven issue areas were eliminated in the Initial Study as having no potential for significant environmental impacts: aesthetics, agriculture resources, land use/planning, public services, population/housing, recreation, and mineral resources.

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 construction impact analysis revealed that the simultaneous construction activities at all three project sites will result in significant adverse air quality impacts. In addition, the analysis of operational impacts identified long-term significant air quality impacts associated with criteria pollutants being emitted from the CTs.

1.5.2 Biological Resources

Potential impacts to biological resources from proposed project activities were identified only at the SGS site. However, further investigation indicated that because the area where construction will occur is not suitable habitat for species of concern, no significant adverse impacts to biological resources are expected.

1.5.3 Cultural Resources

Potential significant impacts to cultural resources 50-year-old cooling towers at VGS were identified during a Phase I cultural assessment. The analysis included in Chapter 4 regarding the cooling towers at the VGS concluded that impacts would be less than significant because the cooling towers do not meet the definition of unique archaeological resources in PRC § 21083.2(g).

1.5.4 Energy

Potential energy impacts were identified from fuel consumed by construction equipment and worker vehicles associated with construction activities. Additionally, potential operational energy impacts were identified from ammonia delivery associated with operational activities. The analysis included in Chapter 4 concluded that energy impacts associated with the proposed project will not be insignificant.

1.5.5 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 (e.g., liquefaction, earthquake, induced ground motion, and slope instability) exists. However, with mitigation, those impacts are reduced to a level of insignificance.

1.5.6 Hazards and Hazardous Materials

The hazards impacts analysis in Chapter 4 examines the operational hazards associated with the transport, handling, and storage of aqueous ammonia, which will be used in the SCR systems to reduce NO_x emissions. The analysis concluded that hazard impacts associated with the implementation of the proposed project will be significant.

1.5.7 Hydrology / Water Quality

Potential increased water demand as well as additional wastewater generation from the implementation of the proposed project are evaluated in Chapter 4. The analysis concluded that hydrology/water quality impacts and increased water demand associated with the proposed project are insignificant.

1.5.8 Noise

The noise evaluation examined the potential increase in noise levels associated with the installation and operation of five CTs and associated SCR units at HGS, installation of one CT and SCR unit at HGS, and the installation of three SCR units on existing power generating equipment at SGS. Considered in this analysis was noise potentially generated from construction and demolition associated with installation of the CTs and SCR units, aboveground ammonia storage tanks, construction crew and delivery traffic, and operation of each facility. The analysis included in Chapter 4 concluded that noise impacts associated with the proposed project will be insignificant with the implementation of the appropriate mitigation measures.

1.5.9 Solid / Hazardous Waste

The solid/hazardous waste evaluation examined the potential increased disposal of debris associated with the demolition and removal of underground tanks and cooling towers during construction activities. The analysis also evaluated the potential increased disposal of spent SCR catalyst associated with operational activities. The analysis included in Chapter 4 concluded that solid/hazardous waste impacts associated with the proposed project will be insignificant.

1.5.10 Transportation / Traffic

The additional trips caused by construction workers involved in the construction activities at all three project sites 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 proposed project will not be significant.

1.5.11 Mitigation

As described above, the implementation of the proposed project will result in short-term significant adverse air impacts during construction, long-term significant adverse air impacts for operations-related activities, and an increased hazards risk from catastrophic failure of aqueous ammonia tanks, pipelines, and delivery trucks. Feasible mitigation measures, where available, have been identified in Subsections 4.2 and 4.7.

In addition, potential significant impacts associated with geology and noise were also identified. However, the analysis included in Chapter 4 concluded that geology and noise impacts

associated with the proposed project will be insignificant with the implementation of mitigation measures. See Subsections 4.6 and 4.9 for a discussion of those mitigation measures.

1.5.12 Environmental Impacts Found Not To Be Significant

The NOP/IS for the proposed project released to the public on October 3, 2000, includes 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 remaining environmental topics. As mentioned earlier, a comment was received on the NOP/IS requesting additional information on Cultural Resources; therefore, Cultural Resources have been considered in this ~~Draft~~Final EIR and the SCAQMD staff has determined that there will be no significant impacts to the following environmental areas as a result of implementing the proposed project:

- Aesthetics
- Agriculture Resources
- Biological Resources
- Land Use / Planning
- Mineral Resources
- Population / Housing
- Public Services
- Recreation

1.5.13 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 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 1.5-1 lists the alternatives considered by the SCAQMD and how they compare to the proposed project.

Table 1.5-2 presents a matrix that lists the significant adverse impacts as well as the cumulative impacts associated with the proposed project and the project alternatives for the environmental topics analyzed. The table also ranks each impact section as to whether the proposed project or a project alternative would result in greater or lesser impacts relative to one another.

**Table 1.5-1
Comparison of Adverse Environmental Impacts Associated with
Project Alternatives to the Proposed Project**

Environmental Topic	Alternative A (No Project)	Alternative B	Alternative C	Mitigation Measures
Air Quality Pollutants ^a	TACs, NOx, CO, VOC, PM10	TACs, NOx, CO, VOC, PM10	TACs, Nox, CO, VOC, PM10	NOx, CO, VOC, PM10
Construction	Not Significant	Significant, less than Proposed Project ^b	Significant, equivalent to Proposed Project	Additional watering in addition to complying with Rule 403, proper maintenance
Operational	Not Significant, less than Proposed Project	Significant, equivalent to Proposed Project	Significant, equivalent to Proposed Project	VOC offsets
Biological Resources	Not Significant, less than Proposed Project	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	None Required
Energy	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	Not Significant, equivalent Proposed Project	None Required
Cultural Resources	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	Not Significant, equivalent to Proposed Project	None Required
Geology/Soils	Not Significant, less than Proposed Project	Mitigated to Insignificant Level, equivalent to Proposed Project	Mitigated to Insignificant Level, equivalent to Proposed Project	Compliance with building codes

**Table 1.5-1 (continued)
Comparison of Adverse Environmental Impacts Associated with
Project Alternatives to the Proposed Project**

Environmental Topic	Alternative A (No Project)	Alternative B	Alternative C	Mitigation Measures
Hazards and Hazardous Materials	Not Significant, less than Proposed Project	Significant, equivalent to Proposed Project	Significant, equivalent to Proposed Project	Develop hazards plan; Perform pre-start Job Safety Analysis; Manual shutdowns on tanks; Containment dikes; Ammonia detectors

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Hydrology/Water Quality	Not Significant, less than Proposed Project	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	None Required
Noise	Not Significant, less than Proposed Project	Mitigated to Insignificant Level, equivalent to Proposed Project	Mitigated to Insignificant Level, equivalent to Proposed Project	Equipment specifications; Muffler maintenance; Rubber-tired equipment; limit traffic through residential areas; Location of loading/staging areas
Solid/Hazardous Waste	Not Significant, less than Proposed Project	Not Significant, equivalent to than Proposed Project	Not Significant, less than Proposed Project	None Required
Transportation/Traffic	Not Significant, less than Proposed Project	Not Significant, equivalent to than Proposed Project	Not Significant, equivalent to Proposed Project	None Required
^a Pollutants = Emission benefits and increases associated with the proposed project. ^b Proposed Project = The simultaneous activities at all three project sites.				

**Table 1.5-2
Ranking of Alternatives^a**

Project/ Alternative	Air Quality Impacts		Biological Resources Impacts		Cultural Sources		Energy Impacts		Geology/ Soils Impacts		Hazards/ Hazardous Materials Impacts		Hydrology/ Water Quality Impacts		Noise Resources		Solid/Hazardous Waste Impacts		Transportation/ Traffic Impacts	
	Sign. Impacts	Cum. Impacts	Sign. Impacts	Cum. Impacts	Sign. Impacts	Cum. Impacts	Sign. Impacts	Cum. Impacts	Sign. Impacts	Cum. Impacts	Sign. Impacts	Cum. Impacts	Sign. Impacts	Cum. Impacts	Sign. Impacts	Cum. Impacts	Sign. Impacts	Cum. Impacts	Sign. Impacts	Cum. Impacts
Project ^b	X(4)	X(4)									X(2)	X(2)								
A	(1)	(1)									(1)	(1)								
B	X(3)	X(3)									X(2)	X(1)								
C	X(2)	X(2)									X(2)	X(2)								

^a Rankings do not take into consideration the benefits of the proposed project or project alternatives.

^b Project = The simultaneous activities at all three project sites.

Notes: The ranking scale is such that 1 represents the least impacts and subsequent higher number represent increasingly worse impacts.

The same two numbers in brackets for a specific Impact Section means that these alternatives would have the same impacts if implemented.

An "X" denotes either a project-specific significant adverse impact or cumulative significant adverse impact.

A "blank" denotes no significant adverse impact or no cumulative significant adverse impact.

1.7 Chapter 6 Summary – Cumulative Impacts

Several 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 – Persons and Organizations Consulted and References

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