

**PROPOSED
INITIAL STUDY / MITIGATED NEGATIVE DECLARATION
FOR THE
LOS ANGELES REGIONAL INTEROPERABLE
COMMUNICATIONS SYSTEM (LA-RICS)
LAND MOBILE RADIO (LMR) SYSTEM
SITE INDUSTRY WATER TANKS (INDWT)**



Prepared for:

LA-RICS Joint Powers Authority
2525 Corporate Place, Suite 100
Monterey Park, CA 91754

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**PROPOSED MITIGATED NEGATIVE DECLARATION
FOR THE LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM (LA-RICS),
LAND MOBILE RADIO (LMR) SITE INDUSTRY WATER TANKS (INDWT)**

Project Proponent

Los Angeles Regional Interoperable Communications System (LA-RICS) Joint Powers Authority (Authority)

Project Location

The Project location is south of the City of Diamond Bar in an unincorporated area of Los Angeles County between Brea Canyon to the west and northwest and Tonner Canyon to the south and east. The Project site is on a hilltop, and includes a parcel owned by the City of Industry that contains existing water tanks near where the proposed telecommunications facility would be constructed. The Project site also extends generally southeast and southwest from these water tanks along unpaved roads to include a route for proposed power lines to the site. Two areas have been identified for extension of power to the site from existing utility power interconnection points, although only one of these options would be used. Both of these areas extend into the County of Orange. A figure showing the Project location is included as Figure 1-1 in the attached Initial Study.

Project Description

The proposed Project is the construction and operation of an LMR telecommunications facility at Site INDWT that supports emergency response and daily communications by first and secondary responders of the region's public safety agencies. The proposed Project would provide LMR coverage to a portion of Los Angeles County not served by sites in the current LA-RICS LMR system¹ and provide significant improvements to emergency response in the areas it would serve. Site INDWT would consist of three main components: a steel pole structure (also known as a monopole) for mounting antennas, an equipment shelter to house the communications and auxiliary equipment, and an emergency backup generator and fuel tank. The site would also require installation of either pole-mounted or underground electrical distribution lines to connect it to the power grid. A more detailed project description is included in the attached Initial Study.

Findings

A summary of the findings of the Initial Study by environmental resource topic is provided below. The Initial Study that supports these findings is attached.

The proposed Project would result in no impacts to the following environmental resources:

- Agriculture and Forest Resources
- Land Use and Planning
- Mineral Resources

¹ The LA-RICS LMR system, which includes approximately 60 sites, was the subject of an environmental impact report (EIR) certified in April 2016 by the Authority (SCH# 2014081085) and is currently under construction.

- Population and Housing
- Public Services
- Recreation

Less than significant impacts would occur to the following environmental resources:

- Aesthetics
- Air Quality
- Geology and Soils
- Greenhouse Gases
- Hydrology and Water Quality
- Noise
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems

Less than significant impacts with mitigation incorporated would occur to the following environmental resources:

- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Mandatory Findings of Significance

Applicable mitigation measures, agreed to by the Project proponent, are listed below.

Mitigation Measures

The Authority has determined that the mitigation measures listed below are applicable to proposed Site INDWT and will implement them if the site is approved. As background, the text of these measures was originally developed in connection with the EIR certified by the Authority for the LA-RICS LMR System in April 2016, and the measures are currently being implemented for those sites. Therefore, the text of these measures, in some cases, was originally drafted to be applicable to more than one site. For consistency in ensuring compliance with the mitigation measures, the naming and wording of the mitigation measures from the LMR EIR has generally been retained. Additionally, the mitigation measure numbers in the table below are not all continuous. However, the Authority has determined that the following mitigation measures are applicable and would be implemented for the proposed Site INDWT Project.

Mitigation Measure	Impact
<p>BIO MM 1 Mitigation Monitoring and Reporting Plan</p> <p>Prior to construction, the Authority shall develop and implement or require the system contractor to develop and implement a mitigation monitoring and reporting plan (MMRP) for the proposed Project. The MMRP would serve to organize environmental compliance requirements identified in best management practices, mitigation measures, permit requirements, real property agreement conditions, and other applicable sources. The MMRP shall contain an organization chart and communication plan for environmental compliance as it relates to the proposed Project.</p>	<p>Biological Resources, items a), b), and e)</p>
<p>BIO MM 2 Worker Environmental Awareness Program</p> <p>Prior to construction, the Authority shall develop and implement or require the system contractor to develop and implement a Worker Environmental Awareness Program (WEAP) for the proposed Project. This conservation measure would serve to institute and formalize an education program to increase awareness of environmental resources and measures and rules that are in place to help minimize impacts to those resources.</p> <p>a) A WEAP shall be developed and shall be required for all construction employees prior to placement of Project equipment, construction, or any ground disturbing activities at the proposed Project site. Training of additional workers, contractors, and visitors shall be provided, as needed.</p> <p>b) The WEAP is to inform on-site workers of the possible presence of special status species, the measures to be taken to protect these species, and the importance of minimizing impacts to the natural environment through the protection of native vegetation, adhering to required buffers and protection zones, staying on existing roads, and implementing best management practices that include containment of any spills, disposal of trash, and management of runoff and sediment transport.</p> <p>c) To assure long-term implementation of mitigation measures, an information sheet shall be prepared, distributed to workers, and posted on site, listing potential sensitive species and what to do if any are encountered.</p>	<p>Biological Resources, items a), b), and e)</p>
<p>BIO MM 3 Biological Compliance Reporting</p> <p>A biological monitor shall visit all active construction sites at least once weekly to document compliance and provide reports to the Project administrator on a weekly basis.</p>	<p>Biological Resources, items a), b), and e)</p>
<p>BIO MM 4 Site Sanitation</p> <p>a) The contractor shall keep a regulated work area free of litter and trash. Trash and discarded food items shall be contained within an appropriate receptacle and removed daily to avoid attracting wildlife to the construction site, contribute to habituation of wildlife to the presence of humans, or to attract avian or mammalian predators to the area.</p> <p>b) All construction debris (including nuts, bolts, small pieces of wire, etc.) shall be cleaned up (e.g., trash removed, scrap materials picked up) each day that work is conducted to minimize the likelihood of wildlife visiting the site and consuming microtrash, discarded food, or other substances.</p>	<p>Biological Resources, item e)</p>
<p>BIO MM 5 Hazardous Materials Management</p> <p>a) A toxic substance management and spill response plan shall be prepared by the contractor.</p> <p>b) Hazardous materials shall be contained; spills shall be prevented; and any spills at</p>	<p>Biological Resources, item e)</p>

Mitigation Measure	Impact
<p>the Project site or along access roads shall be contained and cleaned up immediately.</p> <p>c) All construction vehicles are required to carry at least one spill response kit.</p> <p>d) Any spills shall be accounted for in reports prepared by the biological/environmental monitor.</p>	
<p>BIO MM 8 Biological Monitoring</p> <p>A qualified biological monitor shall be present at the site during construction activities that result in ground disturbance or removal of vegetation to ensure all conservation measures are met. Duties of the biological monitor include checking for the presence of wildlife on the construction site, inspecting trenches or holes for trapped wildlife, surveying for the presence of nesting birds and adherence to nesting bird protection buffers, monitoring construction site boundaries, and checking that vegetation flagged for protection is not disturbed.</p>	<p>Biological Resources, items a), b), and e)</p>
<p>BIO MM 9 Protect Native Vegetation and Common Wildlife</p> <p>a) Minimize disturbance to native perennial plants; new ground disturbance shall be the minimum necessary and established and delineated prior to any earth-moving activities.</p> <p>b) If native perennial vegetation cannot be avoided and would be impacted or destroyed, the disturbance area is to be surveyed for the presence of special status plants and to remove common species of wildlife prior to destruction of the vegetation.</p> <p>c) At no time shall protected species be handled or moved. If a protected species is found within the construction area, all work that may impact that animal shall cease and the appropriate agency(s) shall be contacted (e.g., USFWS, CDFW, land management agency). The animal shall be allowed to leave the site on its own accord.</p> <p>d) Prior to construction or any ground-disturbance activities, mark the construction disturbance limits and monitor for adherence to these boundaries.</p> <p>e). Stay on existing roads.</p> <p>f) Do not remove native trees; construction limits shall be established to avoid walnuts, oaks, and any other sensitive species habitat and the limits shall be flagged by a biological monitor.</p> <p>g). Protect tree root systems by precluding paving, trenching, or other ground-disturbing activities; and preclude heavy equipment from driving, parking, or staging within the tree's drip line.</p> <p>h) Any loss of native perennial vegetation, whether planned or unintentional, is to be accounted for in reports prepared by the biological monitor</p>	<p>Biological Resources, items a), b), and e)</p>
<p>BIO MM 10 No Pets</p> <p>Construction and maintenance workers shall be prohibited from bringing pets (especially dogs) to nonurban Project sites, as the domestic animal may harass or kill native wildlife present at the site.</p>	<p>Biological Resources, items a), b), and e)</p>
<p>BIO MM 11 Site Access</p> <p>a) On access roads, operate all vehicles within the posted speed limits.</p> <p>b). If access road speed limits are not posted, do not exceed 15 miles per hour (mph).</p>	<p>Biological Resources, items a), b), and e)</p>

Mitigation Measure	Impact
<ul style="list-style-type: none"> c). Adjust vehicle speed as appropriate to road conditions; avoid causing ruts and gullies, and minimize dust. d). Watch for wildlife on roads (including amphibians, snakes, rodents, and tortoises), especially during raining periods, and avoid running them over. e). Look under parked vehicles for the presence of wildlife (especially desert tortoise) before pulling away to avoid running over wildlife. f) Do not park on or drive over native perennial vegetation. g) Avoid cutting corners on access roads and impacting vegetation when large equipment and trailers are brought to the Project site. h) Do not drive off the designated roadway or make any modifications to the road or road shoulders. 	
<p>BIO MM 12 Coastal California Gnatcatcher Protection</p> <ul style="list-style-type: none"> a) As part of BIO MM 2 WEAP, construction crews shall be informed of the possible presence of coastal California gnatcatchers in the area and the importance of maintaining coastal sage scrub vegetation. b) As part of BIO MM 9 Protect Native Vegetation and Common Wildlife, disturbance to native perennial vegetation, especially coastal sage scrub vegetation (e.g., California sagebrush, sage, and laurel sumac, and California buckwheat), would be minimized. Surveys shall be conducted by a qualified biologist for the presence of coastal sage scrub perennial vegetation and plants not identified for removal within or near the construction zone shall be marked for protection. c) As part of BIO MM 3 Biological Compliance Reporting, the environmental monitor shall verify at least once a week during active construction and upon completion of construction activities that habitat protection measures have been followed. 	<p>Biological Resources, items a) and b)</p>
<p>BIO MM 17 Raptor Protection</p> <ul style="list-style-type: none"> a) If construction activities occur during the American peregrine falcon, bald eagle, golden eagle, long-eared owl, or burrowing owl breeding period, January 1 through July 31, preconstruction surveys would be conducted in all suitable habitats within 500 feet of the Project site as well as within a species-appropriate distance beyond the 500-foot buffer based on line of sight between potential nesting habitat and the construction site. b) If construction takes place during the breeding period, the biological monitor shall contact appropriate land management and resource agencies to ascertain if they have any current information on raptor nesting activities in the general vicinity of the proposed Project sites. c) If an active American peregrine falcon, bald eagle, golden eagle, long-eared owl, or burrowing owl nest is discovered within 500 feet of the construction site, work shall not be undertaken at that site until the nest is no longer active, with an additional five days to allow the fledging birds to disperse. An active nest is defined as one that is attended, built, maintained, or used by a pair of birds during a given breeding season, whether or not eggs are laid; a nest is considered inactive if not attended to for a period of 10 days or longer. d) If an active American peregrine falcon, bald eagle, golden eagle, long-eared owl, or burrowing owl nest is discovered between 500 feet and 0.5 mile of the construction site, the potential for disturbance of the nesting birds would be 	<p>Biological Resources, item a)</p>

Mitigation Measure	Impact
<p>evaluated based on line-of-sight, degree of potentially disturbing activities, and other site-specific factors. If the CDFW and land management agency concur, the protection buffer distance may be reduced.</p>	
<p>BIO MM 18 Nesting Bird Protection</p> <ul style="list-style-type: none"> a) It is preferred that removal of trees or large tree limbs and other vegetation removal activities such as grubbing or shrub clearing avoid the typical bird nesting season of January 1 through September 15. b) If construction activities occur during the bird nesting season, and to prevent disturbance to or destruction of nests of protected native bird species that could occur as a result of vegetation removal, disturbance, or other on-site construction activities, preconstruction surveys for nesting birds shall be conducted by a qualified biological monitor within 10 calendar days prior to on-site construction-related disturbance activities from March 1 through September 15 for non-raptors, and January 1 through July 31 for raptors. c) If nesting protected non-raptor species are detected, a 300-foot avoidance buffer shall be implemented; a 500-foot avoidance buffer would be applied to any active nest of a raptor or other species of special status bird. d) Appropriate site-specific buffers may be established with the approval of a project designated avian expert, based in part on the species of nesting bird present, location of nest, nesting phenology, magnitude of potential disturbance, and other site conditions (e.g., levels of ambient noise; line-of-sight). e) If construction activities would occur within the general buffer distances for active nests (300 feet for nonraptors, 500 feet for raptors, and up to 1.5 miles for condors and eagles), a Biological Monitor must be present during those activities. f) No active nests may be destroyed; inactive bird nests may be destroyed as part of vegetation removal but may not be reduced to possession. g) Between September 16 and December 30, grubbing, shrub clearing, and tree/limb removal activities are not subject to restrictions based on the protection of migratory birds. h) Comply with the USFWS Office of Migratory Birds voluntary guidelines (USFWS 2013a) for communications tower placement, construction, and operation. i) For any towers that must exceed 199 feet in height, lighting requirements would be designed in cooperation with FAA and USFWS Office of Migratory Birds to minimize attraction and resulting mortality of migratory birds. 	<p>Biological Resources, item a)</p>
<p>BIO MM 19 Trenches and Holes Management</p> <ul style="list-style-type: none"> a) The contractor shall cover or backfill all trenches the same calendar day they are opened, where practicable. b) If trenches or holes cannot be closed the same day they are made, covers shall be firmly secured at ground level in such a way that small wildlife cannot slip beneath. At sites that require the presence of a biological monitor, trench covers shall be approved by the monitor. c) Open trenches shall be inspected regularly throughout the day and prior to filling to remove any trapped common wildlife (e.g., small mammals, reptiles, amphibians) and to check for the presence of protected wildlife species (e.g., arroyo toad) at Project sites that require the presence of a biological monitor. d) If a protected wildlife species is present in the trench, the on-site biological monitor shall contact USFWS immediately, ensure the protected species is not in immediate danger, and wait for instruction by USFWS. 	<p>Biological Resources, items b) and e)</p>

Mitigation Measure	Impact
<ul style="list-style-type: none"> e) Covered trenches and holes at sites where biological monitors are present are to be inspected by the monitor at the end of the work day and prior to initiating construction activities the next day. f). In locating trenches or holes, minimize disturbance to natural vegetation, including plant root systems. g) Prior to trenching, mark the construction disturbance limits and monitor for adherence to these boundaries. 	
<p>BIO MM 24 Special Status Plants Surveys and Protection</p> <ul style="list-style-type: none"> a) As part of BIO MM 2 WEAP, construction crews shall be informed prior to the onset of construction activities of the possible presence of special status plants in the area, and the importance of maintaining native vegetation. b) At identified sites, surveys for special status plants shall be conducted by a qualified botanist prior to ground disturbing activities, in the proper season (i.e., during the plant species’ blooming period) and in suitable habitat surrounding the proposed Project site or any area subject to ground disturbance, including access roads. c) If a special status plant is found to be present or if surveys are determined to be inconclusive, the areas requiring special protection would be marked prior to construction to provide a buffer to maintain the ecological context of the location at which the plant was found. d) BIO MM 8 - Biological Monitoring shall apply at proposed Project sites where special status plants or their habitat are present, and protection buffers would be monitored for compliance. 	<p>Biological Resources, item a)</p>
<p>CUL MM 3: Unexpected Discovery of Archaeological Materials</p> <p>In the event that previously unidentified prehistoric or historic-age archaeological resources are uncovered, the following actions shall be taken:</p> <ul style="list-style-type: none"> 1) All ground-disturbing work within 165 feet (50 meters) of the discovery shall be halted. The qualified archaeological monitor will mark the immediate area with highly visible flagging and immediately notify the Project Archaeologist. 2) The Project Archaeologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, the resource shall be documented on California State Department of Parks and Recreation cultural resource record forms, and no further effort shall be required. 3) If the resource cannot be avoided and may be subject to further impact, the Project Archaeologist shall evaluate the resource and determine whether it is (1) eligible for inclusion in the NRHP and is thus a historic property for the purposes of the NHPA and NEPA; (2) eligible for the CRHR and thus a historical resource for the purposes of CEQA; (3) a “unique” archaeological resource as defined by CEQA; (4) a Tribal resource as defined by AB 52. If the resource is determined not to be significant under any of these four categories, work may commence in the area following collection (as appropriate) and recording, including mapping and photography, of the archaeological materials or features. 4) If the resource meets the criteria for any or all of the categories described in CUL MM 3 (3), work shall remain halted, and the Project Archaeologist shall consult with LA-RICS Authority staff regarding methods to ensure that no substantial adverse changes occur. Preservation in place (i.e., avoidance) is the preferred 	<p>Tribal Cultural Resources, item b)</p>

Mitigation Measure	Impact
<p>method of ensuring no substantial adverse impacts occur on historic properties/historical resources and shall be required unless other equally effective methods are agreed upon among the Project Archaeologist, the Authority, and any other stakeholders. If the archaeological material appears to represent a site – defined as three or more artifacts and/or features in an intact deposit – an archaeological test program (Phase II) may be necessary. Associated mitigation measures include, but are not limited to, collection of the archaeological materials, recordation (e.g., DPR Primary Record and Site Forms), and analysis of any significant cultural materials in accordance with a Data Recovery Plan, and curation of artifacts at an approved curation facility. A curation agreement for this Project is already in place with the University of California, Los Angeles, Archaeological Collections Facility at the Fowler Museum. At the completion of the appropriate mitigation measures, a professional-level technical report shall be filed with the appropriate California Historical Resources Information System (CHRIS) Information Center (IC).</p> <p>5) Work at the project location may commence upon completion of the appropriate mitigation treatment(s).</p>	
<p>CUL MM 4: Unexpected Discovery of Human Remains</p> <p>In the event that human remains are unexpectedly encountered, the following procedures shall immediately be followed. This guidance is also provided on the NAHC's website at http://nahc.ca.gov/resources/discovery-of-native-american-human-remainswhat-to-do/.</p> <ol style="list-style-type: none"> 1) All construction activity shall stop immediately, and the Project Archaeologist shall be notified. The Project Archaeologist will contact the Los Angeles (or applicable) County Coroner. The list of California Coroners can be found on the Native American Heritage Commission's website at http://nahc.ca.gov/2015/06/implementation-of-ab52-sample-lettersrequest-for-formal-notification-and-request-for-consultation/. 2) The Coroner has two working days to examine human remains after being notified by the responsible person. If the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission. 3) The Native American Heritage Commission will immediately notify the person it believes to be the most likely descendent of the deceased Native American. 4) The most likely descendent has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods. 5) If the descendent does not make recommendations within 48 hours the owner shall reinter the remains in an area of the property secure from further disturbance, or; 6) If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the Native American Heritage Commission. 	<p>Cultural Resources, item d); Tribal Cultural Resources, item b)</p>
<p>CUL MM 6: Potential Paleontological Resources Plan</p> <p>A Paleontological Resources Monitoring Plan shall be developed and approved prior to construction to guide the activities of monitors during ground-disturbing activities. The plan would include, but not be limited to, a description of the Project location, the regulatory framework, site-specific impact mitigation requirements designed to</p>	<p>Cultural Resources, item c)</p>

Mitigation Measure	Impact
<p>reduce impacts to less than significant, specific locations and construction activities requiring monitoring and/or spot checking, and procedures to follow for construction monitoring and fossil discovery and recovery, and a repository agreement with the Natural History Museum of Los Angeles County or other accredited repository. Mitigation measures that may be implemented to ensure that impacts to paleontological resources would be reduced to less than significant may include but are not limited to the following:</p> <p>a) Worker awareness training on paleontological resources presented to construction personnel prior to the start of construction. The training should include at minimum, the following:</p> <ul style="list-style-type: none"> • The types of fossils that could occur at the Project site • The procedures that should be taken in the event of a fossil discovery • Laws protecting paleontological resources • Penalties for destroying or removing paleontological resources. <p>b) Paleontological monitoring during ground disturbance at all sites with moderate/unknown or high paleontological potential</p> <p>c) Salvage of significant fossil resources</p> <p>d) Screen washing of matrix samples for microfossils</p> <p>e) Laboratory preparation of recovered fossils to the point of identification and curation</p> <p>f) Identification of recovered fossils to the lowest possible taxonomic order</p> <p>g) Curation of significant fossils at the Natural History Museum of Los Angeles County or other accredited repository</p> <p>h) Preparation of a final monitoring report that includes at a minimum the dates of field work, results of monitoring, fossil analyses, significance evaluation, conclusions, locality forms, and an itemized list of specimens.</p> <p>The Plan shall be submitted to the Authority for review and approval and finalized at least 14 days prior to the start of construction.</p>	
<p>CUL MM 7: Paleontological Resources Monitoring</p> <p>Paleontological monitoring shall be conducted by a qualified paleontological monitor who has demonstrated experience in the collection and salvage of fossil materials. An undergraduate degree in geology or paleontology is preferable but is less important than documented experience performing paleontological monitoring and mitigation. The monitor will work under the supervision of a Principal Paleontologist.</p> <p>The qualified professional paleontological monitor shall be present during ground disturbance at all sites with moderate/unknown or high paleontological potential, and as specified in the Paleontological Resources Monitoring Plan prepared in accordance with CUL MM 6. The monitor shall be present during all subsurface excavation for tower or monopole foundations and during grading for access roads and structure foundations. Based on the specific site conditions observed during monitoring (type of sediment impacted, previous disturbances, nature of site conditions), the Principal Paleontologist may reduce or increase monitoring efforts in consultation with the Agency.</p>	<p>Cultural Resources, item c)</p>

Mitigation Measure	Impact
<p>In the event that a previously unidentified paleontological resource is uncovered, the following actions shall be taken:</p> <ol style="list-style-type: none"> 1) All ground-disturbing work within 50 feet of the discovery shall be halted. A qualified paleontologist shall divert or direct construction activities in the area of an exposed fossil in order to facilitate evaluation and, if necessary, salvage of the exposed fossil. Work shall not resume in the discovery area until authorized by the qualified paleontologist. 2) The paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, no further effort shall be required. 3) If the resource cannot be avoided and may be subject to further impact, the paleontologist shall evaluate the resource and determine whether it is “unique” under CEQA, Appendix G, Part V. If the resource is determined not to be unique, work may commence in the area. 4) If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with LA-RICS Authority staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource. Preservation in place (i.e., avoidance) is the preferred method of ensuring that no substantial adverse impacts occur to the resource and shall be required unless other equally effective methods are available. Other methods include ensuring that the fossils are scientifically recovered, prepared, identified, catalogued, and analyzed according to current professional standards. 5) Due to the small nature of some fossils, a fine mesh screen may be used at the discretion of the paleontologist to screen matrix test samples on site during monitoring. Additionally, bulk matrix samples may be collected and transported to a laboratory facility for processing. 6) Provisions for preparation and identification of any fossils collected shall be made before donation to a suitable repository. 7) All recovered fossils shall be curated at the Natural History Museum of Los Angeles County, or a local accredited and permanent scientific institution according to Society of Vertebrate Paleontology standard guidelines standards. Work may commence upon completion of the appropriate treatment and the approval from the Authority. 	
<p>HAZ MM 3: Fire Management Plan</p> <p>Prior to construction activity, the Authority must work with the agency responsible for fire protection in the jurisdiction where the site is located to develop and implement a fire management plan for use during construction activity. The plan will identify Project locations, project descriptions, anticipated construction activities, limitation of activities during periods of elevated fire risk (e.g., “red flag” days), level of suppression equipment required on site, training requirements, and points of contact.</p>	<p>Hazards and Hazardous Materials, item h)</p>

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Term
AB	Assembly Bill
Authority	Joint Powers Authority
APE	area of potential effects
APSA	Aboveground Petroleum Storage Act
BACT	Best Available Control Technology
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CO ₂	carbon dioxide
CBC	California Building Code
CDC-CGS	California Department of Conservation, California Geological Survey
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CMU	concrete masonry unit
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
C/NR	Conservation and Natural Resources
County	Los Angeles County
CRHR	California Register of Historical Resources
EIR	Environmental Impact Report
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FT	foot/feet
FTA	Federal Transit Administration
GHG	greenhouse gas
HASAP	Hazard Assessment Safety Action Plan
HVAC	heating, ventilation, and air conditioning
INDWT	Industry Water Tanks
kW	Kilowatt
LACDPW	Los Angeles County Department of Public Works
LACSD	Los Angeles County Sanitation District
LADRP	Los Angeles County Department of Regional Planning
LA-RICS	Los Angeles Regional Interoperable Communications System

Acronym/Abbreviation	Term
LED	light-emitting diode
LMR	Land Mobile Radio
LOS	level of service
LST	local significance threshold
µg/m ³	microgram per cubic meter
MM	mitigation measure
MMRP	Mitigation Monitoring and Reporting Plan
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO _x	nitrogen oxides
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
O ₃	Ozone
Pb	Lead
PBF	physical or biological feature
PCE	primary constituent element
PM ₁₀	particulate matter less than 10 microns in size
PM _{2.5}	particulate matter less than 2.5 microns in size
ppm	parts per million
PPV	peak particle velocity
RWQCB	Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SEA	Significant Ecological Area
SPCC	Spill Prevention, Control, and Countermeasure
SR	State Route
SRA	Source/Receptor Area
SUV	sport utility vehicle
TCNS	Tower Construction Notification System
U.S.	United States
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WEAP	Worker Environmental Awareness Program

1 ENVIRONMENTAL CHECKLIST FORM

1. Project title:

Los Angeles Regional Interoperable Communications System (LA-RICS), Land Mobile Radio (LMR) Site Industry Water Tanks (INDWT)

2. Lead agency name and address:

Los Angeles Regional Interoperable Communications System Joint Powers Authority
2525 Corporate Place, Suite 200
Monterey Park, CA 91754

3. Contact person and phone number:

Nancy Yang (323) 881-8049

4. Project location:

South of the City of Diamond Bar in an unincorporated area of Los Angeles County (County). The Project site lies between Brea Canyon to the west and northwest and Tonner Canyon to the south and east. The Project site is on a hilltop, and includes a parcel adjacent to existing water tanks that are owned by the City of Industry where the proposed telecommunications facility would be constructed. The Project site also extends generally southeast and southwest from these water tanks along unpaved roads to include two route options for proposed power lines to the site from existing utility power interconnection points, although only one of these options would be used. Both of these areas extend into the County of Orange (**Figure 1-1 — INDWT Project Site Location**).

5. Project sponsor's name and address:

LA-RICS Joint Powers Authority (Authority)
2525 Corporate Place, Suite 100
Monterey Park, CA 91754

6. General plan designation:

Los Angeles County: Rural Land 10 and Rural Land 20; Orange County: General Agriculture

7. Zoning:

Los Angeles County: Heavy Agriculture (A-2-1, A-2-2); Orange County: A1(O)

8. Description of project:

Background

Los Angeles County experiences many man-made and natural incidents that require a rapid, coordinated response among the region's first and secondary responders. Public safety services in Los Angeles County are provided by more than 80 public safety agencies represented by approximately 34,000 first

Figure 1-1 — INDWT Project Site Location



responders and 17,000 secondary responders serving more than 10 million residents, tourists, and commuters in the region. Many of these agencies use communications systems that have exceeded their useful life (i.e., equipment and programming are no longer supported by vendors). Due to the numerous systems in use and the number of agencies, interagency communication is challenging.

To help address these needs in the Los Angeles region, the Authority was formed under a Joint Powers Agreement in 2009 with the mission to develop and operate a regional public safety communications system that provides interoperable communication on a single platform using integrate voice and data technologies for the region's first and secondary responders. Much of the LA-RICS LMR system, currently under construction, was the subject of an environmental impact report (EIR) certified in April 2016 by the Authority (SCH# 2014081085). In addition, many of the sites in the system qualified for a statutory exemption granted by the State of California at Public Resources Code (PRC) 21080.25 specifically for the LA-RICS system. Notices of Exemption have been filed for 31 independent sites since 2014. Site INDWT does not qualify for the LA-RICS statutory exemption, because it does not meet all of the criteria for Statutory Exemption identified at PRC 21080.25. Specifically, it does not currently contain communications equipment.

The LA-RICS LMR system is a wireless communications system for mobile and portable devices such as walkie-talkies and two-way radios. The LA-RICS LMR system consists of antennas and support equipment at independent sites located throughout Los Angeles County. The LMR sites in the system contain the infrastructure and equipment necessary to provide day-to-day voice and narrowband data radio communications coverage for emergency responders throughout the County. These sites are widely dispersed across the County in both urban and rural settings and include mountain peaks and coastal and high desert locations, as well as downtown Los Angeles.

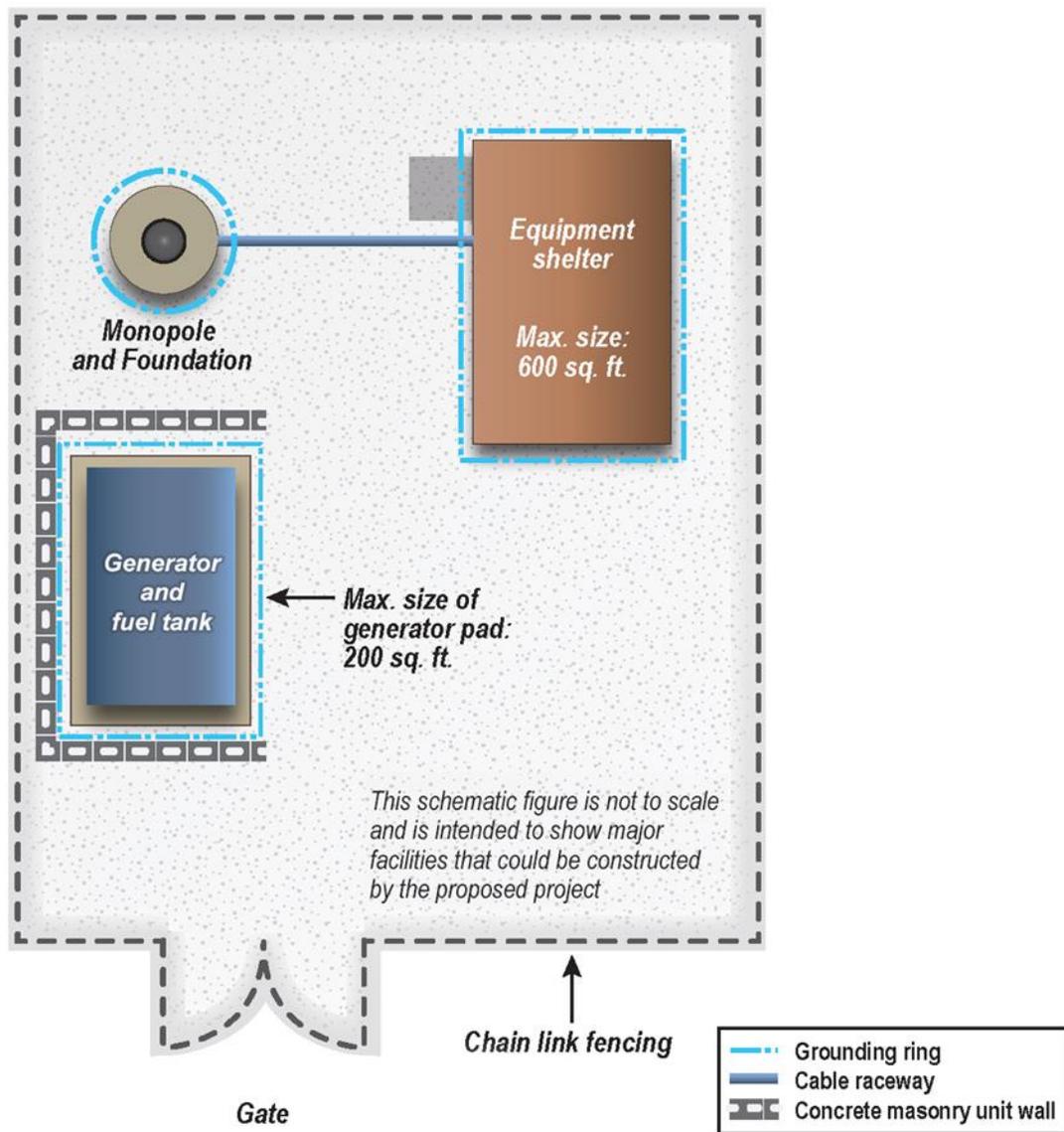
Proposed Project

The proposed Project is the installation and operation of LMR Site INDWT. The proposed Project would provide LMR coverage to a portion of Los Angeles County not served by sites in the current LA-RICS LMR system and would provide significant improvements to emergency response and day-to-day operations for public safety agencies in the areas it would serve. Once developed and operational, Site INDWT could operate independently from the overall LMR system. Construction and operation of Site INDWT would not commit or compel the Authority to construct any additional LMR facilities or infrastructure. The major components of the proposed Project are discussed below.

Proposed Project Infrastructure

The proposed Project site is currently undeveloped and located along an unpaved (i.e., dirt and narrow) road. A fenced area containing two existing water tanks is near to but not contiguous with the proposed site. Because the site is undeveloped, all proposed facility components would require new construction, and no demolition of existing infrastructure is expected to occur. Site INDWT would consist of three main components: a steel pole structure (also known as monopole) for mounting antennas, an equipment shelter to house the communications and auxiliary equipment, and an emergency backup generator and fuel tank. A conceptual site layout showing these components is provided in **Figure 1-2 – Conceptual Site INDWT Facility Layout**. The site would also require installation of electrical distribution lines to connect it to the power grid. The infrastructure proposed for development at Site INDWT is discussed below.

Figure 1-2 – Conceptual Site INDWT Facility Layout



Monopole. An up to 70-foot-tall monopole would be installed at Site INDWT. The monopole would be a free-standing structure with a single footing and would be installed by drilling a caisson. The width of the monopole and depth of the caisson would vary based on site conditions which have not yet been investigated; but, in general, a 70-foot monopole typically would have a diameter at ground level of approximately 6.5 feet and require a caisson at least 36 feet deep or a 10-foot-deep concrete mat foundation. An up to 15-foot-tall lightning rod would extend above the top of the new monopole.

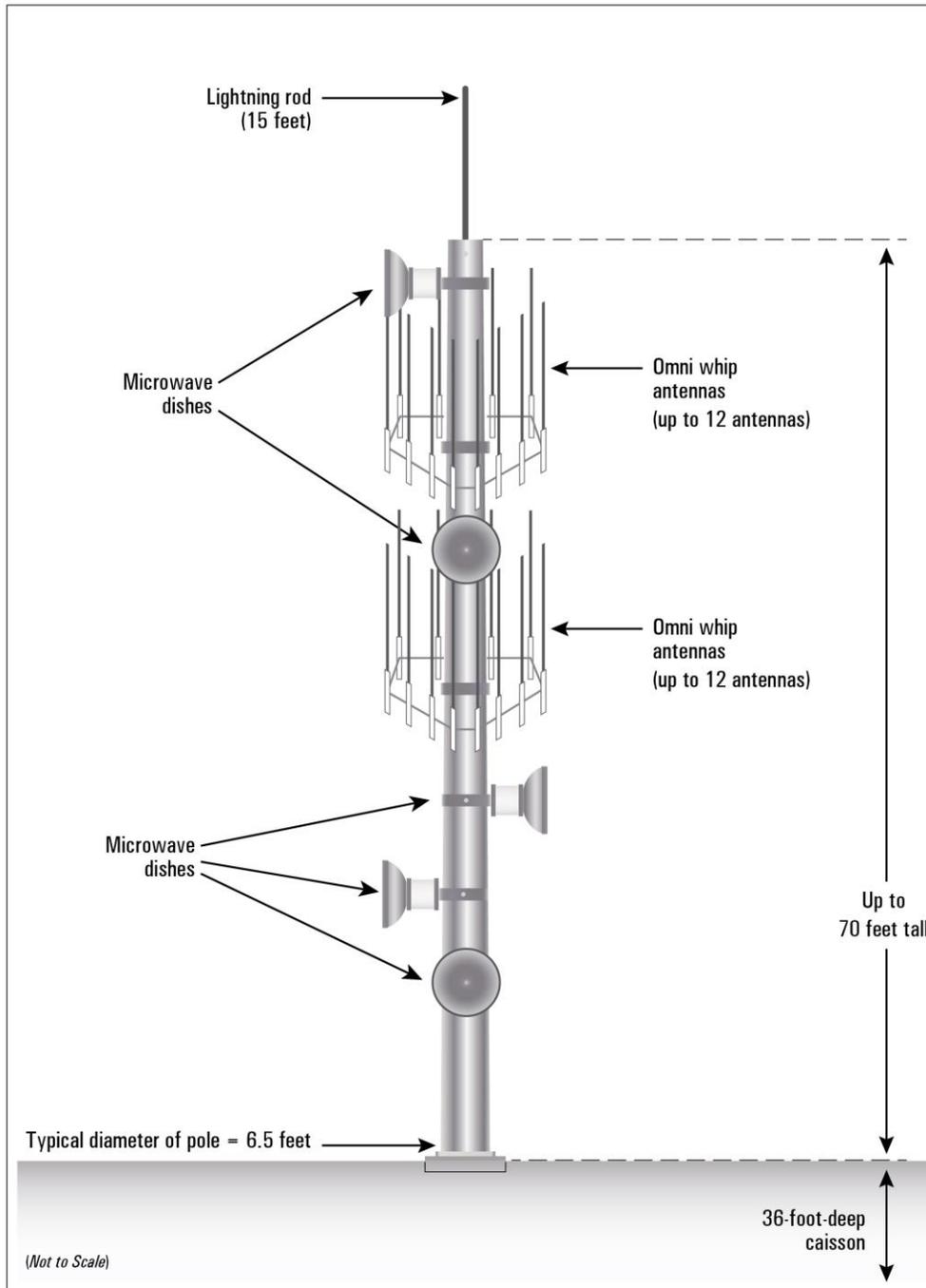
Whip and microwave antennas would be installed on the monopole. Whip antennas are narrow, cylindrical structures, typically 10 to 15 feet long, designed to provide 360-degree radio signal patterns and support two-way radio communications. Microwave antennas are parabolic dishes that direct line-of-sight signals between sites to provide connectivity among sites in the LMR system. Microwave antennas typically range from 2 to 12 feet in diameter. The monopole would support up to 20 whip and 5 microwave antennas. A typical LMR system monopole is shown in **Figure 1-3 – Typical Monopole with Antennas.**

Equipment Shelter. The site would require a shelter to house the radio communication equipment. The shelter would be up to 600 square feet and would either be concrete masonry unit (CMU) construction built on site or a prefabricated shelter delivered to the site. The shelter would be installed on a concrete pad up to 600 square feet in area and up to 18 inches deep. The shelter would require heating, ventilation, and air conditioning (HVAC) to control interior temperature and humidity. The equipment shelter would require exterior security lighting equivalent to a 100-watt light bulb. The shelter would have a valve-regulated (sealed) gel cell, or absorbed glass mat type lead-acid battery, or fuel cell battery emergency power system. The shelter roof would be designed so that burning embers will not collect under eaves. The shelter would be constructed in accordance with applicable building codes.

Emergency Generator and Fuel Tank. Site INDWT would require backup power, which would be provided by an emergency diesel generator up to 125 kilowatts (kW). The emergency generator would be mounted outdoors on a concrete pad, potentially with curbs. A CMU wall would be installed around the generator, or the generator may be installed within its own shelter or building enclosure. The new generator foundation size would not exceed 200 square feet. The emergency generator would be equipped with spark arrestors and cooling and heating mechanisms. Automatic transfer switches would be installed to allow automatic transfer of power sources in the event of an electrical utility outage and would be capable of being monitored remotely. The generator would have a remote start function. The generator would be permitted in accordance with *SCAQMD Regulation XIV, Rule 1470 (2012) – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines.*

The generator would be fueled by an up to 4,000-gallon, double-walled diesel fuel tank. The tank would be constructed in accordance with current codes and standards, and installation would include secondary containment as applicable based on tank size. The fuel tank would require an up to 400 square foot foundation and may be located within the same enclosure as the generator or may be located separately. The fuel tank would be sized to allow for up to 168 hours of operation at full-rated load. Routine testing of emergency generators would occur during scheduled maintenance of the site.

Figure 1-3 – Typical Monopole with Antennas



Utilities. Electricity is not available at Site INDWT; therefore, an electrical line would need to be installed between the proposed telecommunications facility and the electrical utility grid.

Two potential power alignment options have been identified as shown in **Figure 1-1**, only one of which would be used. The local utility provider, Southern California Edison, would evaluate the potential power alignment and identify their preferred power alignment to the Authority at a later date. Because this decision has not been made at this time, this analysis considers both options so that whatever alignment is selected will have been addressed under CEQA. One option extends southeasterly approximately 4,500 linear feet from the Project site where it would connect to an existing power line located along Tonner Canyon Road. The other option extends southwesterly up to approximately 5,500 linear feet from the Project site where it would connect to an existing power line. The new electrical line would be installed under the existing road bed or overhead on new wooden poles installed adjacent to the existing road. For an overhead line, new poles would be installed within 5 feet of the edge of the road, with each pole approximately 200 feet apart. Poles could be placed closer together where the road sharply turns, and each of these poles would likely be supported by a guy wire for greater stability. Guy lines would be secured to the ground up to 20 feet from the pole. If placed underground, the new electrical line would be installed in a conduit placed in a trench approximately 36 inches below the grade of the roadbed. If required, telecommunications optical fiber could be installed with or near the proposed new overhead or underground electrical infrastructure. The site would not require water or natural gas utilities, and no wastewater would be generated.

Other Components. In addition to the components described above, other required infrastructure could include:

- **Grounding.** The new foundations for monopole, equipment shelter, and emergency generator would be surrounded by a subsurface ground ring installed in a trench approximately 30 inches below grade to protect persons and equipment from power surges and lightning strikes.
- **Cable Raceway.** Communications cables to connect the antennas on the monopole to the radio equipment in the shelter would be routed via an aboveground cable tray supported by steel posts at regular intervals or via underground conduits in a trench approximately 36-48 inches below grade.
- **Fencing.** The monopole, equipment shelter, generator and fuel tank would be enclosed by an up to 12-foot-high chain link fence for security. The fence would include swing gates to accommodate access for maintenance vehicles and would be locked for security when no one is on site. The total fenced area of Site INDWT would be less than 5,000 square feet.
- **Access, Parking, and Staging Areas.** The site would be accessed using existing paved and unpaved roads. No new road or off-site improvements would be required to access Site INDWT. Some improvements to existing access roads at the telecommunications site may be required to improve access or allow for creation of vehicle parking and equipment staging areas. Only existing previously disturbed areas or areas where former habitat has been degraded by grazing would be used for access roads, turnarounds, and parking areas; and aggregate may be applied in these areas to stabilize the ground or control dust.
- **Lighting.** The new equipment shelter would require exterior security lighting equivalent to no more than a 100-watt light bulb. Lighting for air navigation safety may be required by the

Federal Aviation Administration (FAA) depending on site conditions and location. If required, the new monopole would be lighted and/or marked consistent with FAA Advisory Circular, AC 70/7460-1L Obstruction Marking and Lighting, for visibility to aircraft, as applicable. If tower obstruction lighting is installed on the monopole, it may include red or white light-emitting diode (LED) lamps or strobe lights that are steady and/or flashing.

Construction

If approved, construction of Site INDWT would be expected to begin in 2018 and be completed by the end of 2019. Prior to construction the site would undergo a Phase I environmental site assessment. The Phase I environmental site assessment would be conducted in coordination with the property owner after initial site design review has been completed. If it is determined that construction activities could encounter impacted soils or impacted groundwater, the contractor would prepare a site-specific Health and Safety Plan that meets the requirements of 29 CFR 1910 for worker safety. If the extent or the nature of the impacted soil or groundwater cannot be determined from available documents, a Phase II investigation would be completed to determine if the soils and/or groundwater that may be encountered during construction are impacted. The Phase II investigation would also determine the nature of contaminations that may be encountered and would also address disposal alternatives and procedures for any impacted soil that may be encountered or groundwater which may need to be removed. Any identified hazards affecting construction or operation of the site would be abated prior to initiation of construction. If abatement were infeasible, Site INDWT would be eliminated from consideration.

Table 1-1 summarizes the construction activities associated with Site INDWT. Construction of Site INDWT may result in substantially less disturbance or excavation than the maximum quantities listed in the table, but the analysis assumes maximum disturbance to be conservative.

Table 1-1: Anticipated Construction Activities

Disturbance Type	Disturbance Amount
Temporary Disturbance (includes staging)	Temporary disturbance area (includes staging): Up to 5,000 square feet
Permanent Disturbance	Permanent disturbance area: Up to 4,000 square feet
Excavation (including geotechnical investigation)	Excavation: Up to 150 cubic yards removed
Trenching and augering	Proposed trenching for underground conduits to accommodate power, grounding rings, and/or fiber up to 800 linear feet, approximately 36-48 inches below grade, up to 24 inches wide. If electrical power lines are installed underground, an additional up to 6,000 linear feet of trenching could be required. If overhead lines are constructed, as many as fifty 3-foot-wide and 20-foot-deep holes may be drilled for pole set.
Foundation Construction	Proposed foundations include: Up to 8-foot-diameter by 36-foot-deep drilled caisson with concrete cap for monopole support; or up to 300-square-foot by 10-foot-deep concrete mat foundation Up to 600-square-foot by 18-inch concrete slab, or raised foundation for equipment shelter Up to 200-square-foot by 18-inch concrete slab for generator Up to 400-square-foot by 18-inch concrete slab for fuel tank.

Estimates of construction equipment and duration of use at Site INDWT are described in **Table 1-2**.

Table 1-2: Project Site Construction Equipment Usage

Equipment Type	Specification (Brake Horsepower)	No.	Hours Per Day	Trips To/ From Site	Days on Site ¹	Usage
Personnel and Tool Delivery						
F250 Antenna and Line Truck	306	4	0.067	120	30	Haul equipment
F550 Civil Truck	306	1	0.067	30	30	Haul personnel
Site Preparation						
Mini Excavator	22.9	1	4	1	15	Cut and fill work
Excavation						
Auger Drill Rig ²	205 [206] ²	1	3	1	2	Install fences, excavate foundation holes and bores, install power poles
Excavator ¹	153	1	5	1	10	Trenching
Cat Skid Steer	73	1	4	1	10	Move excavated soil on site
2,000 Gallon Water Truck	210	1	1	3	10	Dust control
Pad Construction						
Concrete Truck	450	1	1	19	19	Pour concrete
Monopole/Shelter and Equipment Installation						
3-Ton Flatbed Truck	400	1	3	1	2	Haul materials and equipment
250-Ton Crane	530	1	8	2	4	Monopole/shelter/fuel tank installation
8,000 Pound Reach Fork	60	1	4	2	5	Access structures, string conductor, modify structure arms, tree trimming/ removal, etc.
Portable Generator ²	84 [7] ²	1	6	1	10	Operate power tools
¹ Maximum six-week total construction duration. ² Horsepower and usage data referenced from <i>Broadband Technology Opportunities Program Final Environmental Assessment, Los Angeles Regional Interoperable Communications System LTE System (LA-RICS LTE, 2008)</i> .						

Typical construction equipment required would include four-wheel drive vehicles, antenna and line trucks, water trucks, excavators, skidsters, cranes, forklifts, dump trucks, and concrete trucks.

The Project site would be graded so that water drains away from the installed structures. A minimum of a 2-percent grade would be provided. After completion of construction and grading, the fenced facility would be covered in aggregate (gravel) from a permitted local source. Areas disturbed during construction that are not to be permanently covered by aggregate would be seeded to prevent erosion.

Excavated material of suitable quality could be used as backfill on site. Unsuitable or excess excavated material would be removed for disposal off site at an appropriate facility.

Site INDWT would be accessed via existing paved and unpaved roads. No road improvements or new road construction would occur.

Included in the proposed Project design are best management practices (BMPs) that have been developed to avoid or minimize impacts to environmental resources that may be present on the proposed Project site. BMPs represent best professional practices and/or use of accepted technology to ensure desired regulatory compliance is achieved and are often included in building permits or other regulatory conditions. Examples of BMPs applicable to the proposed Project are provided below.

- Apply water to the construction site as needed to comply with Rule 403 of the applicable air quality management district.
- Enclose or water down exposed dirt storage piles.
- Minimize the disturbed area and preserve vegetation to the maximum extent possible.
- Phase construction activities, to the extent possible, to reduce disturbed areas and time of exposure.
- Plan the development to fit the topography, soils, drainage pattern, and natural vegetation of the site.
- Delineate clearing limits, easements, setbacks, sensitive or critical areas, trees, drainage courses, and buffer zones to prevent excessive or unnecessary disturbances and exposure. Minimize the size of staging areas to the extent practical.
- Avoid excavation and grading during wet weather.
- Use berms and drainage ditches to divert runoff around exposed areas. Place diversion ditches across the top of cut slopes.
- Control stormwater flowing to and through the project site.
- Protect slopes by using measures such as erosion control blankets, bonded fiber matrices, turf reinforcement mats, silt fences (for moderate slopes), etc.
- Temporarily protect storm drain inlets until the site is stabilized. Protect drainage courses, creeks, or catch basins with fiber rolls, silt fences, sand/gravel bags, and/or temporary drainage swales if on-site sediment control measures are not adequately preventing stormwater runoff.
- Use appropriate erosion control measures to reduce siltation and runoff of contaminants into wetlands and adjacent ponds, streams, or riparian woodland/scrub.

- Conduct routine inspections of erosion control measures especially before and immediately after rainstorms, and repair if necessary.
- Establish stabilized construction entrances/exits (e.g., large crushed rocks, stone pads, steel wash racks, hose-down systems, and pads).
- Clean up leaks, drips, and other spills immediately to avoid soil or groundwater contamination. Cleanup of a spill on soil would include removing the contaminated soil using the emergency spill cleanup gear. Contaminated soil and disposable gear used to clean up a hazardous materials spill would be properly disposed of following state and federal hazardous material disposal regulations.

Operations and Maintenance

No on-site staff would be required to operate the LMR equipment at Site INDWT. Operational activities would include occasional routine inspections, maintenance, and repairs. Maintenance activities would involve both routine preventive maintenance and emergency procedure testing, including emergency generator testing, to maintain service continuity. Emergency generators would be tested on a monthly basis. The test run time each month would be approximately one hour. Fuel tanks would require occasional refilling. LMR structures and equipment would be inspected annually, at a minimum, for corrosion, equipment misalignment, loose fittings, and other common mechanical problems. Maintenance activities may require use of bucket trucks (man-lifts), standard vans, or utility pickup trucks, depending on the scope of maintenance. The LMR components may need to be repaired or replaced to maintain uniform, adequate, safe, and reliable service. Equipment replacement or repair that cannot be diagnosed and performed remotely may require a technician on site, typically in a standard van or utility pickup truck. Where replacement or repair involves installed antennas, a four-person crew with one truck, a boom (aerial lift) truck, and an assist van or sport utility vehicle (SUV) might be required.

The site would continually draw power for LMR operations and security and safety lighting (including any aviation safety or obstruction lighting that might be required by FAA).

9. Surrounding land uses and setting:

Site INDWT is located in an undeveloped area that is used for cattle grazing. The proposed facility location is adjacent to two water tanks owned by the City of Industry that are located to the northeast. The area is surrounded by the Orange Freeway (State Route 57) located approximately one-half mile to the west and northwest of the proposed facility site, residential development located approximately one-half mile to the north, the Boy Scouts of America Firestone Scout Reservation located approximately three-quarters of a mile to the east and southeast, and facilities related to oil extraction located along Tonner Canyon Road approximately a mile to the south. A radio antenna farm with towers more than 400 feet tall is located approximately three-quarters of a mile to the southwest. An electrical transmission line with large lattice support structures runs east-west approximately one-quarter mile south of the site.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- Federal Emergency Management Agency – National Environmental Policy Act (NEPA) and Environmental and Historic Preservation compliance approval
- Federal Aviation Administration - Hazard Determination; Form 7460-1 Notice of Proposed Construction or Alteration (if required)
- Federal Communications Commission - Antenna Structure Registration (if required)
- U. S. Fish and Wildlife Service – Endangered Species Act Section 7 informal consultation
- California State Historic Preservation Officer – National Historic Preservation Act (NHPA) Section 106 consultation
- South Coast Air Quality Management District - Air permit for facility back-up generator
- Los Angeles Regional Water Quality Control Board – National Pollutant Discharge Elimination System (NPDES) permit for groundwater dewatering during construction (if required)
- County of Los Angeles – Conditional Use Permit, Building Permit
- City of Industry – Site Access Agreement

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?

No California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed Project requested consultation pursuant to California PRC section 21080.3.1 (Assembly Bill [AB] 52) for the Site INDWT Project area. However, after consultation with the Native American Heritage Commission (NAHC) (Totton, Gayle 2017), tribal consultation was conducted using traditional paths, which included requesting a search of the NAHC’s Sacred Lands File and a list of California Native American tribes with interest in the INDWT geographic area (NAHC 2017). The NAHC was contacted using their required online form format on October 22, 2017, and their letter response was received by email on October 25, 2017. The NAHC stated that the records search of the Sacred Lands File was negative (i.e., no sacred lands were identified at the Project site); however, the letter further indicated that the area of potential effects (APE) is sensitive for cultural resources (NAHC 2017). Each tribe on the NAHC list was subsequently contacted through their preferred method of communication (e.g., direct mailings, including follow-up telephone calls and emails). In addition, because the Federal Emergency Management Agency (FEMA) as the federal funding source for the Project has deferred Section 106 compliance to the Federal Communications Commission (FCC), the proposed INDWT tower location was entered into the FCC’s Tower Construction Notification System (TCNS), which notifies any federally recognized tribes having an interest in the INDWT geographic area. The federally recognized tribes were consulted using the preferred methods stated in the various TCNS responses, including submittal of INDWT-specific information (maps, photographs, survey results) provided by email, direct mailings, or through upload to their website, and through follow-up telephone conversations, as needed. Using this NAHC-approved combined method for tribal outreach, a total of 14 federally recognized and other California tribes were consulted for the Site INDWT Project area. Tribal consultation with the 14 tribes was completed in January 2018. The 14 tribes consulted are:

- Gabrieleño Band of Mission Indians-Kizh Nation
- Gabrieleño/Tongva San Gabriel Band of Mission Indians
- Gabrielino/Tongva Nation
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino-Tongva Tribe
- Juaneño Band of Mission Indians
- Fernandeño Tataviam Band of Mission Indians
- Eastern Shoshone Tribe
- Skull Valley Band of Goshute Indians
- San Manuel Band of Mission Indians
- Cahuilla Band of Indians
- Los Coyotes Reservation
- Santa Ynez Band of Mission Indians
- Soboba Band of Luiseno Indians

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2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

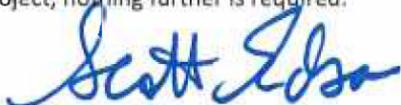
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



 Signature



 Date

 Signature

 Date

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3 ENVIRONMENTAL ISSUES

3.1 AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant		No Impact
		with Mitigation Incorporated	Significant Impact	
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

The area considered for impacts to aesthetics is one-half mile from the proposed monopole site. Photographs of the Project site are included in Appendix A.

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. No scenic vista has been identified in the area. The Project site is surrounded by unimproved, privately owned vacant parcels and is not accessible to the general public. No known trails in the area provide views of the site. The site is also more than 0.5 mile from an eligible scenic highway (see analysis under 3.1 b below). The site is not a significant ridgeline identified in the Los Angeles County General Plan (LADRP 2014b).

Construction. Construction activities would not generally be visible to viewers in adjacent areas and would not have a substantial adverse impact on a scenic vista as none have been identified in the area.

Operational. The Project would result in an up to 70-foot monopole on a hilltop that would be visible from some distance, particularly the south-facing slopes of the hillside northwest of State Route (SR) 57, and the north-facing slope of the hillside southeast of Tonner Canyon Road, where the Firestone Scout Reservation is located. The site's viewshed also includes a residential area approximately 0.5 mile northeast, as well as some areas of the hillside to the southeast of the site. The new monopole would be visible from portions of the nearby Firestone Scout Reservation; however, the monopole location is more than 0.5 mile away from the nearest campsites and other developed areas on the reservation. Rolling hills adjacent to the west and northwest of the site, as well as dense vegetation, preclude views of the site from SR 57, Brea Canyon Road, and the residential area.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact.

Construction. The Project area does not contain any designated state scenic highways. No rock outcropping or historic buildings are in the Project area, and no trees would be removed during construction. Construction of the proposed Project would not result in damage to any scenic resources.

Operational. The Project area does not contain any designated state scenic highways. The nearest designated state scenic highway is the portion of SR 91, the Riverside Freeway, located between SR 55 and SR 241. This designated segment is located more than 7 miles to the south of the Project site. SR 57, the Orange Freeway, in the Brea Canyon area (between Lambert Road on the south and SR 60 on the north), is an eligible state scenic highway but is not officially designated. The proposed monopole would be visible from some locations along the eligible portion of the freeway; however, the site is approximately 0.5 mile from SR 57 at its closest point. Operation of the proposed Project would not result in damage to any scenic resources.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. The proposed site is located in an unincorporated area identified as South Diamond Bar in the *Los Angeles County 2035 General Plan* (County of Los Angeles 2015). South Diamond Bar is designated as an agricultural zone according to the Los Angeles County Department of Regional Planning. The land, which is owned by the City of Industry, has no commercial or residential properties (Los Angeles Times 2017). The existing visual character reflects the current agricultural land use in the area. Land cover includes primarily shrub/scrub intermixed with evergreen forest (EPA 2017). A few deciduous trees, reaching approximately 20 to 30 feet tall, are located adjacent to the site, as well as two white water tanks enclosed within a chain link fence; the tanks are approximately 10 to 20 feet tall (see **Figure 1-2**). A radio antenna farm is located approximately 0.75 mile to the southwest. At least five radio antennas are visible from SR 57 and Brea Canyon Road, which parallels SR 57. These antennas reach heights of 476 feet. An electrical transmission line travels east-west approximately 0.25 mile south of the Project site, connecting to a lattice support tower located at roughly the same elevation as the proposed telecommunications site. As mentioned above, SR 57 is located approximately 0.5 mile from the site. Although the site and the area surrounding is generally undeveloped, the presence of the water tanks, transmission line towers, radio antennas, and highway introduce industrial and transportation elements into the scene. The radio antennas and transmission line towers are conspicuous vertical elements along the ridgeline. No outstanding natural or cultural elements are present. The visual quality of the overall scene is typical of the general region.

Construction. Construction activities would result in the temporary presence of construction equipment on the site. The equipment would be located adjacent to the existing water tanks. The presence of this equipment would not substantially degrade the existing visual character or quality of the site and its surroundings.

Operational The presence of a potentially 70-foot tall monopole on a hilltop would not substantially degrade the existing visual character or quality of the site and its surroundings. The monopole would be consistent with other vertical elements that currently exist along the ridgeline and would be substantially shorter than the grouping of existing radio antennas (a maximum of 70 feet high compared to 476 feet high) and the electrical utility transmission line

lattice support towers that are more than 100 feet high. The proposed telecommunications site would also be visually compatible with the two adjacent water tanks, particularly the equipment shelter and generator. Although the site would introduce a new man-made element into a primarily undisturbed area, the site’s visual character and quality would not substantially change due to the presence of similar existing structures.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact.

Construction. Construction activities are expected to occur during daylight hours. Construction activities would not include use of equipment or materials that would be sources of substantial light or glare that could adversely affect views in the area.

Operational. The proposed monopole may require lighting in accordance with FAA requirements. Although the site is in an undeveloped area, it is adjacent to densely developed areas to the north and south where lighting typical of urban areas is present. The radio antennas located to the southwest of the site have red air navigation obstruction hazard lighting. If FAA lighting is required, it would be intended to be visible to pilots for purposes of aircraft operations safety and would not result in illumination of areas not currently illuminated. Based on the nature of tower safety lighting (LED white or red solid or blinking lights), proposed Project facilities would not introduce a substantial new source of light or glare. The monopole and other facilities would not have reflective surfaces that would result in daytime glare. The Project would not result in new sources of substantial light or glare that could affect day or nighttime views.

3.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) 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 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to nonforest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to nonforest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

No Impact. The site is not located on an area mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the Farmland Mapping and Monitoring Program (FMMP) (FMMP 2014).

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. The proposed Project site is not under a Williamson Act contract (State of California Department of Conservation 2016). The proposed Project site is located in an area zoned Heavy Agricultural (A-2) by Los Angeles County and A1(O) by Orange County. The Los Angeles County Code Title 22 (Section 22.16.030) indicates that radio towers are allowed in Zone A-2 with a conditional use permit. Therefore, the Project would not conflict with the agricultural use zoning. Installation of power lines would occur within or along existing roads and would not conflict with the agricultural zoning designation of either the Los Angeles County or Orange County portion of the power run alignment.

c) 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

4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. Site INDWT is not used for or zoned for forest land, timberland, or timberland production.

d) Result in the loss of forest land or conversion of forest land to nonforest use?

No Impact. Site INDWT is not forest land. No trees would be removed to construct or operate the Project.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to nonforest use?

No Impact. The proposed telecommunication site would occupy less than an acre of land that is currently being grazed. Although the site is currently being used for grazing, it is not identified as Grazing Land in the FMMP. The Project would not convert Farmland or forest land to other uses.

3.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

The proposed Project site is located in the South Coast Air Basin (SCAB), within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD has developed emissions thresholds for projects with air quality impacts. The thresholds presented in **Table 3.3-1** were determined to be appropriate for assessing the significance of both construction and operational air

quality impacts for the proposed Project. The listed thresholds were used to evaluate the Project's impacts on air quality, specifically as they relate to significance criteria 3.3 a) through 3.3 d).

Table 3.3-1: SCAQMD Significance Thresholds

Mass Daily Thresholds^a		
Pollutant	Construction^b	Operation^c
NO _x	100 lbs./day	55 lbs./day
VOC	75 lbs./day	55 lbs./day
PM ₁₀	150 lbs./day	150 lbs./day
PM _{2.5}	55 lbs./day	55 lbs./day
SO _x	150 lbs./day	150 lbs./day
CO	550 lbs./day	550 lbs./day
Pb	3 lbs./day	3 lbs./day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	<ul style="list-style-type: none"> • Maximum Incremental Cancer Risk greater than or equal to 10 in 1 million • Cancer Burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) • Chronic & Acute Hazard Index greater than or equal to 1.0 (project increment) 	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO ₂ eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants^d		
NO ₂ 1-hour average Annual arithmetic mean	SCAQMD is in attainment: project is significant if it causes or contributes to an exceedance of the following attainment standards: <ul style="list-style-type: none"> • 0.18 ppm (state) • 0.03 ppm (state) and 0.0534 ppm (federal) 	
PM ₁₀ 24-hour average Annual average	10.4 µg/m ³ (construction) ^e and 2.5 µg/m ³ (operation) 1.0 µg/m ³	
PM _{2.5} 24-hour average	10.4 µg/m ³ (construction) ^e and 2.5 µg/m ³ (operation)	
SO ₂ 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99 th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 µg/m ³ (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment: project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Pb 30 day average Rolling 3-month average Quarterly average	1.5 µg/m ³ (state), non-vehicular sources 0.15 µg/m ³ (federal) 1.5 µg/m ³ (federal)	

Table 3.3-1: SCAQMD Significance Thresholds

Pollutant	Mass Daily Thresholds ^a	
	Construction ^b	Operation ^c
^a Source: SCAQMD CEQA Handbook (SCAQMD 1993, Revised March 2015). ^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins). ^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds. ^d Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated. ^e Ambient air quality threshold based on SCAQMD Rule 403. KEY: lbs./day=pounds per day; ppm=parts per million; µg/m ³ =microgram per cubic meter NO _x = nitrogen oxides; NO ₂ = nitrogen dioxide; VOC = volatile organic compounds; PM ₁₀ = particulate matter less than 10 micrometers in size; PM _{2.5} = particulate matter less than 2.5 micrometers in size; SO _x = sulfur oxides; CO = carbon monoxide; Pb = lead; TAC = toxic air contaminant; GHG = greenhouse gases http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf (Revised March 2015)		

Estimated air emissions from construction and operation of the proposed INDWT site were calculated for the analysis using similar methodologies detailed in the *Final Environmental Impact Report for the Los Angeles Regional Interoperable Communications System (LA-RICS) Land Mobile Radio (LMR) System* (LMR EIR) (LA-RICS 2016).

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. Air emissions from the proposed Project would result from facility construction activities and from trips to the proposed Project site for maintenance and testing of emergency generators during facility operation. The relevant air quality plan considered in this analysis is the SCAQMD 2016 *Final Air Quality Management Plan* (SCAQMD Plan) (SCAQMD 2016), which is the most up-to-date plan, and the Final 2015 Supplement to the 24-Hour PM_{2.5} SIP (SCAQMD 2015). The purpose of this plan is to demonstrate attainment of the PM_{2.5} 24-hour standard of 35 micrograms per cubic meter (µg/m³) by 2015 within the SCAB, identify measures and actions to fulfill the 8-hour ozone (O₃) State Improvement Plan (SIP) commitments to the federal Environmental Protection Agency (USEPA) to achieve emissions reductions from Best Available Control Technology (BACT), and to demonstrate attainment of the 1-hour O₃ California Ambient Air Quality Standards (CAAQS) by 2022.

Air emissions from construction and operation of the proposed Project were calculated for the following pollutants for comparison to their SCAQMD thresholds as shown in the first part of **Table 3.3-1** under Mass Daily Thresholds: NO_x, ROG (equivalent to regulated VOCs in an outdoor setting), PM₁₀, PM_{2.5}, and CO. Lead (Pb) is not a typical pollutant associated with emissions from construction equipment or generator diesel engine operation and therefore was not included in the emissions calculations. Similarly, SO_x emissions would be negligible and were not quantified.

Construction. Emissions calculated for construction of Site INDWT and a comparison to SCAQMD thresholds are shown in **Table 3.3-2**. Emissions from construction of the site would not exceed SCAQMD thresholds. <http://www.arb.ca.gov/desig/adm/adm.htm>

Table 3.3-2: Construction Emissions for Site INDWT

	SCAQMD Maximum Emissions (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Unmitigated Emissions	0.4777	4.7112	4.9551	0.8067	0.2137
Mitigated Emissions	0.1967	2.1683	4.6501	0.6441	0.1332
SCAQMD Threshold	75	100	550	150	55

lbs/day = pounds per day; ROG = reactive organic gases (equivalent to regulated VOCs in an outdoor setting); NO_x = nitrogen oxides; CO = carbon monoxide; PM₁₀ = particulate matter less than 10 microns in size; PM_{2.5} = particulate matter less than 2.5 microns in size

Because emissions would not exceed any SCAQMD thresholds either during construction, the Project would not conflict with or obstruct implementation of the SCAQMD Plan.

Operational. Operational emissions from the proposed INDWT site were also estimated and are provided in **Table 3.3-3**. Operational emissions would not exceed SCAQMD significance thresholds.

Table 3.3-3: Operational Emissions for Site INDWT

Emission Category	Maximum Daily Emissions (lbs)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Daily Maintenance	0.0017	0.0035	0.0132	0.0019	0.0007
Generator Testing	0.0027	0.0247	0.0241	0.0011	0.011
Total Daily Emissions	0.0044	0.0282	0.0373	0.003	0.0117
Threshold (lbs/day)	55	55	550	150	55
Exceedance	No	No	No	No	No

lbs/day = pounds per day; ROG = reactive organic gases (equivalent to regulated VOCs in an outdoor setting); NO_x = nitrogen oxides; CO = carbon monoxide; PM₁₀ = particulate matter less than 10 microns in size; PM_{2.5} = particulate matter less than 2.5 microns in size

Because emissions would not exceed any SCAQMD thresholds during operations, the Project would not conflict with or obstruct implementation of the SCAQMD Plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact. The SCAB is designated a nonattainment area for the federal standards for ozone (O₃), particulate matter less than 2.5 microns in size (PM_{2.5}), and lead (Los Angeles County portion of SCAB only) and, for the State standards for O₃, particulate matter less than 10 microns in size (PM₁₀), and PM_{2.5} (CARB 2017). The significance thresholds detailed in **Table 3.3-1** were used to determine whether the proposed Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Construction. As discussed in section 3.3 a), emissions from the proposed Project would not exceed SCAQMD thresholds either during construction. Because emissions would not exceed any SCAQMD thresholds, construction of the Project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

Operational. As discussed in section 3.3 a), emissions from the proposed Project would not exceed SCAQMD thresholds during operations. Because emissions would not exceed any SCAQMD thresholds, operation the Project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

- c) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

Less Than Significant Impact. This analysis focuses on the criteria pollutants for which the SCAB is classified as nonattainment: O₃ (federal), PM_{2.5}, and PM₁₀ (State). The significance thresholds detailed in **Table 3.3-1** are the air quality standards considered in this analysis.

Construction. As discussed in section 3.3 a) emissions from the proposed Project would not exceed SCAQMD thresholds either during construction or during operations. Compliance with the significance thresholds for PM_{2.5}, PM₁₀, or O₃ precursor NO_x is sufficient to demonstrate that construction of the proposed Project site in the SCAB would not result in cumulatively considerable net increases in these pollutants.

Operational. As discussed in section 3.3 a) emissions from the proposed Project would not exceed SCAQMD thresholds during operations. Compliance with the significance thresholds for PM_{2.5}, PM₁₀, or O₃ precursor NO_x is sufficient to demonstrate that operation of the proposed Project site in the SCAB would not result in cumulatively considerable net increases in these pollutants.

- d) **Expose sensitive receptors to substantial pollutant concentrations?**

Less Than Significant Impact.

Construction. Air emissions from construction of Site INDWT would be short-term (approximately six weeks). The site is in an undeveloped area that is not accessible to the public, and no sensitive receptors are present. The nearest sensitive receptors are residences located approximately one-half mile north of the site. The SCAQMD has established local significance thresholds (LSTs) of allowable pollutant concentrations at sensitive receptors. For the proposed INDWT site, air emissions from construction were calculated and compared to the applicable LSTs within in the SCAB Source/Receptor Area (SRA) 10 listed in SCAQMD *Final Localized Significance Threshold Methodology* (SCAQMD 2008a). No LSTs for SRA 10 would be exceeded at the closest receivers located approximately one-half mile from the proposed INDWT site; therefore, construction of the proposed Project would not expose sensitive receptors to substantial pollutant concentrations

Operational. Operational air emissions would consist of those from monthly testing of the generator. Pollutant concentrations would be localized in the vicinity of the Project site. The site

is in an undeveloped area that is not accessible to the public, and no sensitive receptors are present. The nearest sensitive receptors are residences located approximately one-half mile north of the site. As described above for construction air emissions, air emissions from Project operations were calculated and compared to the applicable LSTs within in the SCAB SRA 10 listed in SCAQMD *Final Localized Significance Threshold Methodology* (SCAQMD 2008a). No LSTs for SRA 10 would be exceeded at the closest receivers located approximately one-half mile from the proposed INDWT site; therefore, operation of the proposed Project would not expose sensitive receptors to substantial pollutant concentrations

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact.

Construction. Project construction activities would not be expected to produce objectionable odors. The construction of proposed Site INDWT would not include extensive soil excavation or other construction activities (painting and solvent use) that commonly trigger public complaints and would not likely create an odor nuisance pursuant to SCAQMD Rule 402; therefore, impacts would be less than significant. In addition, Site INDWT is located in an undeveloped area that is not accessible to the public. The nearby water tanks site is not a staffed facility. Considerable numbers of people would not be present in the area of the Project site during construction.

Operational. Project operations and maintenance activities would not be expected to produce objectionable odors. Site INDWT is located in an undeveloped area that is not accessible to the public. The nearby water tanks site is not a staffed facility. Considerable numbers of people are not currently present in the area of the Project site; and, because the facility would be unmanned, this would continue to be true after construction is completed and the facility is operational.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

The Project site is within the coast live oak-California black walnut woodland vegetation community and includes an understory of primarily non-native wild oats grassland. Within the study area (i.e., the 500-foot buffer surrounding the Project site) on steep, south-facing slopes are small, scattered patches of native coastal sage scrub with laurel sumac and California sagebrush; the understory is composed of non-native annuals. In the bottom of Tonner Canyon and within the steep ephemeral drainages within the study area are narrow corridors of riparian vegetation that includes scattered stands of arroyo willow within fragmented Southern Coast Live Oak Riparian Forest. Throughout the site the area has been highly disturbed by livestock grazing, past fires, and disking to reduce the fire hazard. The proposed location for the monopole has been highly disturbed by livestock, as indicated by the presence of two watering troughs; and the cattle utilize the shade of the nearby trees during hot weather.

Reconnaissance-level site surveys were conducted within the proposed Project site and study area on December 14, 2016; September 5, 2017; and September 14, 2017. Field notes are provided in Appendix B. The results of these surveys were used in the following analysis.

A list of the common and scientific names of species mentioned in the following analysis is provided in **Table 3.4-1**.

Table 3.4-1. Species Referenced in this Initial Study

Common Name	Scientific Name
Plants	
arroyo willow	<i>Salix lasiolepis</i>
California black walnut	<i>Juglans californica</i>
California sagebrush	<i>Artemisia californica</i>
coast live oak	<i>Quercus agrifolia</i>
cottonwood	<i>Populus fremontii</i>
intermediate mariposa-lily	<i>Calochortus weedii</i> var. <i>intermedius</i>

Table 3.4-1. Species Referenced in this Initial Study

Common Name	Scientific Name
laurel sumac	<i>Malosma laurina</i>
sage	<i>Salvia sp.</i>
seep willow	<i>Baccharis salicifolia</i>
sycamore	<i>Platanus racemosa</i>
wild oats	<i>Avena barbata</i>
Wildlife	
cattle/livestock	<i>Bos taurus</i>
coastal California gnatcatcher	<i>Polioptila californica californica</i>
coyote	<i>Canus latrans</i>
deer	<i>Odocoileus spp.</i>
grasshopper sparrow	<i>Ammodramus savannarum</i>
least Bell's vireo	<i>Vireo bellii pusillus</i>
mountain lion	<i>Puma concolor</i>
western pond turtle	<i>Emys marmorata</i>
yellow-breasted chat	<i>Icteria virens</i>
yellow warbler	<i>Setophaga petechia</i>

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Less Than Significant with Mitigation Incorporated. Table 3.4-2 provides the list of special status species documented in the California Natural Diversity Database (CNDDDB) within about 1.0 mile (accounting for wide-ranging species, dispersal patterns, and poorly documented species) of Project Site INDWT. The CNDDDB species records up to 3.0 miles from the site were also reviewed in the context of on-site habitat evaluations because the distribution of each species may not be fully represented by recorded occurrence data.

Table 3.4-2. Special Status Plants and Animals Recorded within about 1 Mile from Site INDWT.

Species – Common Name	Scientific Name	Status Designation
coastal California gnatcatcher	<i>Polioptila californica californica</i>	ESA-T, ESA-CH, CDFW-SSC
least Bell's vireo	<i>Vireo bellii pusillus</i>	ESA-E, CA-E
yellow warbler	<i>Setophaga petechia</i>	CDFW-SSC
yellow-breasted chat	<i>Icteria virens</i>	CDFW-SSC
grasshopper sparrow	<i>Ammodramus savannarum</i>	CDFW-SSC
western pond turtle	<i>Emys marmorata</i>	CDFW-SSC
intermediate mariposa-lily	<i>Calochortus weedii var. intermedius</i>	CNPS-1B.2

Table 3.4-2. Special Status Plants and Animals Recorded within about 1 Mile from Site INDWT.

ESA = Endangered Species Act
 CDFW = California Department of Fish and Wildlife
 CNPS = California Native Plant Society
 E = Endangered T = Threatened CH = Critical habitat SSC = Species of Special Concern
 1B.2 = plant species that is rare throughout its range and moderately threatened in California

Construction

Coastal California Gnatcatcher: Coastal California gnatcatchers are not expected to be nesting within the study area of Site INDWT (i.e., the 500-foot buffer around the delineated site boundary) due to the lack of suitable coastal sage scrub habitat. The location for the installation of the proposed communications facility has been heavily impacted by livestock grazing (water troughs are located nearby), and no shrub elements of the coastal scrub vegetation community are present. This location, at approximately 1,115 feet in elevation, is above the predominant (99 percent occurrence) maximum elevation range (984 feet) of nesting gnatcatchers; higher elevations may be used during dispersal. Most of the access road/powerline run is over 1,000 feet in elevation. Even at lower elevations where the access road leaves Tonner Canyon there is almost a total lack of coastal sage scrub vegetation. Although small, scattered patches of only a few species of coastal sage scrub vegetation (e.g., laurel sumac and California sagebrush) are found intermixed with the live oak-black walnut woodland on south-facing slopes, these patches are on steep slopes and very small (often only individual plants) with low shrub species diversity and open canopy. This does not constitute sage scrub habitat as used by gnatcatchers for nesting. Due to the absence of suitable nesting habitat, activities associated with construction or operations at Site INDWT would not result in disturbance to nesting gnatcatchers.

Gnatcatchers may use oak-walnut woodland and the scattered shrubs for foraging or during dispersal, especially when in proximity to sage scrub habitats. Gnatcatchers are known to nest within 1 mile of Site INDWT, at lower elevations. If foraging or dispersing gnatcatchers would be present, the noise of construction activities and facility operations (including running a generator for about one hour each month) could disrupt the bird's activities, but generally birds are less sensitive to disturbance farther from their nest and during the non-breeding period. These disturbances may cause foraging or dispersing birds to avoid the source area of the noise but within normal behavior patterns; the bird would simply fly away.

Due to the degraded habitat conditions, construction of a new 70-foot-tall monopole at Site INDWT is not expected to result in additional ground-clearing or removal of native perennial vegetation; and no coastal sage scrub shrubs would be lost. However, activities associated with installation of the buried or overhead powerlines has the potential to result in loss of some perennial shrubs that may be adjacent to the road. Potential impacts to gnatcatchers from these activities would be less than significant. However, the application of various mitigation measures during construction would further reduce Project impacts. These measures would require the Biological Monitor to delineate habitat that is to be protected and ensure that the loss of native plants would be the minimum necessary. Any potential loss of perennial vegetation would also be minimized with the application of **BIO MM 9 Protect Native Vegetation and Common Wildlife** and **BIO MM 12 Coastal California Gnatcatcher Protection**.

(Note: Potential impacts to designated critical habitat are addressed under Significance Criteria 3.4 b.)

Least Bell's Vireo, Yellow Warbler, and Yellow-breasted Chat: Although no suitable riparian nesting habitat for least Bell's vireo, yellow warbler, or yellow-breasted chat is within Site INDWT or the study area, these birds may be nesting somewhere in the general vicinity and could possibly forage within the study area in Tonner Canyon. Only scattered stands of arroyo willow are present, as the creek is too intermittent. That portion of the study area that overlaps with Tonner Canyon is at the beginning of the access road. This area could be used for interconnection of the project to the electrical grid. Project construction may result in noise and human activity that could cause possible disturbance to these foraging birds. This location in Tonner Canyon is used as a parking area for the Firestone Scout Reservation, restroom facilities are present, and there are often many people throughout. The additional human presence due to Project activities, or the presence of equipment while the site is being developed, is minimal in comparison. Noise from construction activities would be of short duration (a day or two) and would not result in removal of riparian habitat or occur within the wash channel. Foraging birds are unlikely to be present at the same time the loudest construction noise would be produced. If a bird would be present during noise generated by installation of the powerline for Site INDWT, it would likely react to noise and other disturbances in accordance with its normal behavior patterns and simply fly away without risk to its nest. Impacts to these species would be less than significant and no mitigation measures would be required.

Grasshopper Sparrow: Nesting grasshopper sparrows have been reported from a little over 1 mile west of Project Site INDWT in an area with a mix of non-native grassland and disturbed coastal sage scrub. Suitable nesting habitat is not present within the Project site or expected to be present within the Project study area. Grazing by livestock has removed most of the grasses, and slopes are extremely steep. Project-related effects to the sparrow would be less than significant; however, implementation of **BIO MM 18 Nesting Bird Protection**, as required for potential impacts to migratory birds (see below), requires preconstruction surveys for any nesting migratory birds to be conducted if Project-related disturbance would occur between March 1 and September 15. Although considered highly unlikely, if an active grasshopper sparrow nest is found, it would be protected by a 300-foot buffer.

Migratory Birds: Disturbance to or destruction of nests of native bird species that are protected by the Migratory Bird Treaty Act and the California Fish and Game Code Sections 3503.5 and 3513 could occur as a result of vegetation removal or other on-site construction activities. Any disturbance to or destruction of active nests associated with the proposed Project would be a significant impact.

With implementation of **BIO MM 17 Raptor Protection and BIO MM 18 Nesting Bird Protection**, preconstruction surveys for nesting birds will occur prior to on-site construction-related disturbance activities from March 1 through September 15; in addition, surveys for nesting raptors will be conducted between January 1 and July 31. Appropriate buffers of 300 feet will be established to protect nesting birds and active bird nests. If nesting owls, eagles, or other raptors are located, a 500-foot avoidance buffer will be implemented in compliance with **BIO MM 17 Raptor Protection and BIO MM 18 Nesting Bird Protection**. With implementation of these mitigation measures, impacts to migratory birds would be less than significant.

Western Pond Turtle: No wetland or aquatic habitats are present in the Project area; habitat is not suitable for the western pond turtle. No impacts would occur to this species.

Intermediate Mariposa-lily: The intermediate mariposa-lily occurs on grassy slopes and ridges; however, the ridges at Site INDWT and along the access road (location of proposed power run options) have been disked, are too over-grazed, and are too weedy to provide habitat for this species. During fall surveys of the Project site no evidence of the conspicuous seed pods were observed, although they could have been eaten by cattle. Suitable habitat may be present within the study area, although much of it is too steep to survey. Potential impacts to intermediate mariposa-lily from Project construction activities would be less than significant. However, in order to further reduce the potential for impacts to this species, **BIO MM 24 Special Status Plants Surveys and Protection** would be applied. **BIO MM 24** requires preconstruction surveys for plants be conducted during the spring.

The following mitigation measures would be implemented during Project construction to reduce potentially significant impacts to migratory birds and to further reduce less than significant impacts to other sensitive species:

BIO MM 1 Mitigation Monitoring and Reporting Plan

Prior to construction, the Authority shall develop and implement or require the system contractor to develop and implement a mitigation monitoring and reporting plan (MMRP) for the proposed Project. The MMRP would serve to organize environmental compliance requirements identified in best management practices, mitigation measures, permit requirements, real property agreement conditions, and other applicable sources. The MMRP shall contain an organization chart and communication plan for environmental compliance as it relates to the proposed Project

BIO MM 2 Worker Environmental Awareness Program

Prior to construction, the Authority shall develop and implement or require the system contractor to develop and implement a Worker Environmental Awareness Program (WEAP) for the proposed Project. This conservation measure would serve to institute and formalize an education program to increase awareness of environmental resources and measures and rules that are in place to help minimize impacts to those resources.

- a) A WEAP shall be developed and shall be required for all construction employees prior to placement of Project equipment, construction, or any ground disturbing activities at the proposed Project site. Training of additional workers, contractors, and visitors shall be provided, as needed.
- b) The WEAP is to inform on-site workers of the possible presence of special status species, the measures to be taken to protect these species, and the importance of minimizing impacts to the natural environment through the protection of native vegetation, adhering to required buffers and protection zones, staying on existing roads, and implementing best management practices that includes containment of any spills, disposal of trash, and management of runoff and sediment transport.

- c) To assure long-term implementation of mitigation measures, an information sheet shall be prepared, distributed to workers, and posted on site, listing potential sensitive species and what to do if any are encountered.

BIO MM 3 Biological Compliance Reporting

A biological monitor shall visit all active construction sites at least once weekly to document compliance and provide reports to the Project administrator on a weekly basis.

BIO MM 8 Biological Monitoring

A qualified biological monitor shall be present at the site during construction activities that result in ground disturbance or removal of vegetation to ensure all conservation measures are met. Duties of the biological monitor include checking for the presence of wildlife on the construction site, inspecting trenches or holes for trapped wildlife, surveying for the presence of nesting birds and adherence to nesting bird protection buffers, monitoring construction site boundaries, and checking that vegetation flagged for protection is not disturbed.

BIO MM 9 Protect Native Vegetation and Common Wildlife

- a) Minimize disturbance to native perennial plants; new ground disturbance shall be the minimum necessary and established and delineated prior to any earth-moving activities.
- b) If native perennial vegetation cannot be avoided and would be impacted or destroyed, the disturbance area is to be surveyed for the presence of special status plants and to remove common species of wildlife prior to destruction of the vegetation.
- c) At no time shall protected species be handled or moved. If a protected species is found within the construction area, all work that may impact that animal shall cease and the appropriate agency(s) shall be contacted (e.g., USFWS, CDFW, land management agency). The animal shall be allowed to leave the site on its own accord.
- d) Prior to construction or any ground-disturbance activities, mark the construction disturbance limits and monitor for adherence to these boundaries.
- e) Stay on existing roads.
- f) Do not remove native trees; construction limits shall be established to avoid walnuts, oaks, and any other sensitive species habitat and the limits shall be flagged by a biological monitor.
- g) Protect tree root systems by precluding paving, trenching, or other ground-disturbing activities; and preclude heavy equipment from driving, parking, or staging within the tree's drip line.
- h) Any loss of native perennial vegetation, whether planned or unintentional, is to be accounted for in reports prepared by the biological monitor.

BIO MM 10 No Pets

Construction and maintenance workers shall be prohibited from bringing pets (especially dogs) to nonurban Project sites, as the domestic animal may harass or kill native wildlife present at the site.

BIO MM 11 Site Access

- a) On access roads, operate all vehicles within the posted speed limits.
- b) If access road speed limits are not posted, do not exceed 15 miles per hour (mph).
- c) Adjust vehicle speed as appropriate to road conditions; avoid causing ruts and gullies; and minimize dust.
- d) Watch for wildlife on roads (including amphibians, snakes, rodents, and tortoises), especially during raining periods, and avoid running them over.
- e) To avoid running over wildlife, look under parked vehicles for the presence of wildlife (especially desert tortoise) before pulling away.
- f) Do not park on or drive over native perennial vegetation.
- g) Avoid cutting corners on access roads and impacting vegetation when large equipment and trailers are brought to the Project site.
- h) Do not drive off the designated roadway or make any modifications to the road or road shoulders.

BIO MM 12 Coastal California Gnatcatcher Protection

- a) As part of BIO MM 2 WEAP, construction crews shall be informed of the possible presence of coastal California gnatcatchers in the area and the importance of maintaining coastal sage scrub vegetation.
- b) As part of BIO MM 9 Protect Native Vegetation and Common Wildlife, disturbance to native perennial vegetation, especially coastal sage scrub vegetation (e.g., California sagebrush, sage, and laurel sumac, and California buckwheat), would be minimized. Surveys shall be conducted by a qualified biologist for the presence of coastal sage scrub perennial vegetation and plants not identified for removal within or near the construction zone shall be marked for protection.
- c) As part of BIO MM 3 Biological Compliance Reporting, the environmental monitor shall verify at least once a week during active construction and upon completion of construction activities that habitat protection measures have been followed.

BIO MM 17 Raptor Protection

- a) If construction activities occur during the American peregrine falcon, bald eagle, golden eagle, long-eared owl, or burrowing owl breeding period, January 1 through July 31, preconstruction surveys would be conducted in all suitable habitats within 500 feet of the Project site as well as within a species-appropriate distance beyond the 500-foot buffer based on line of sight between potential nesting habitat and the construction site.
- b) If construction takes place during the breeding period, the biological monitor shall contact appropriate land management and resource agencies to ascertain if they have any current information on raptor nesting activities in the general vicinity of the proposed Project sites.
- c) If an active American peregrine falcon, bald eagle, golden eagle, long-eared owl, or burrowing owl nest is discovered within 500 feet of the construction site, work shall not be undertaken at that site until the nest is no longer active, with an additional five days to

allow the fledging birds to disperse. An active nest is defined as one that is attended, built, maintained, or used by a pair of birds during a given breeding season, whether or not eggs are laid; a nest is considered inactive if not attended to for a period of 10 days or longer.

- d) If an active American peregrine falcon, bald eagle, golden eagle, long-eared owl, or burrowing owl nest is discovered between 500 feet and 0.5 mile of the construction site, the potential for disturbance of the nesting birds would be evaluated based on line-of-sight, degree of potentially disturbing activities, and other site-specific factors. If the CDFW and land management agency concur, the protection buffer distance may be reduced.

BIO MM 18 Nesting Bird Protection

- a) It is preferred that removal of trees or large tree limbs and other vegetation removal activities such as grubbing or shrub clearing avoid the typical bird nesting season of January 1 through September 15.
- b) If construction activities occur during the bird nesting season, and to prevent disturbance to or destruction of nests of protected native bird species that could occur as a result of vegetation removal, disturbance, or other on-site construction activities, preconstruction surveys for nesting birds shall be conducted by a qualified biological monitor within 10 calendar days prior to on-site construction-related disturbance activities from March 1 through September 15 for non-raptors, and January 1 through July 31 for raptors.
- c) If nesting protected non-raptor species are detected, a 300-foot avoidance buffer shall be implemented; a 500-foot avoidance buffer would be applied to any active nest of a raptor or other species of special status bird.
- d) Appropriate site-specific buffers may be established with the approval of a project designated avian expert, based in part on the species of nesting bird present, location of nest, nesting phenology, magnitude of potential disturbance, and other site conditions (e.g., levels of ambient noise; line-of-sight).
- e) If construction activities would occur within the general buffer distances for active nests (300 feet for nonraptors, 500 feet for raptors, and up to 1.5 miles for condors and eagles), a Biological Monitor must be present during those activities.
- f) No active nests may be destroyed; inactive bird nests may be destroyed as part of vegetation removal but may not be reduced to possession.
- g) Between September 16 and December 30, grubbing, shrub clearing, and tree/limb removal activities are not subject to restrictions based on the protection of migratory birds.
- h) Comply with the USFWS Office of Migratory Birds voluntary guidelines (USFWS 2013a) for communications tower placement, construction, and operation.
- i) For any towers that must exceed 199 feet in height, lighting requirements would be designed in cooperation with FAA and USFWS Office of Migratory Birds to minimize attraction and resulting mortality of migratory birds.

BIO MM 24 Special Status Plants Surveys and Protection

- a) As part of BIO MM 2 WEAP, construction crews shall be informed prior to the onset of construction activities of the possible presence of special status plants in the area and the importance of maintaining native vegetation.
- b) At identified sites, surveys for special status plants shall be conducted by a qualified botanist prior to ground disturbing activities, in the proper season (i.e., during the plant species' blooming period) and in suitable habitat surrounding the proposed Project site or any area subject to ground disturbance, including access roads.
- c) If a special status plant is found to be present or if surveys are determined to be inconclusive, the areas requiring special protection would be marked prior to construction to provide a buffer to maintain the ecological context of the location at which the plant was found.
- d) BIO MM 8 Biological Monitoring shall apply at proposed Project sites where special status plants or their habitat are present, and protection buffers would be monitored for compliance.

Operational. Project operation would not entail any activities that could result in a substantial adverse effect on special status species. Operational activities would include occasional routine inspections, maintenance, and repairs, and would not entail ground disturbing activities or large numbers of personnel traveling to and from the site on a regular basis. If an overhead powerline is used to bring electric service to the site, about 30 wooden power poles would be installed. Each of these poles would likely be supported by a guy wire for greater stability. Guy lines would be secured to the ground up to 20 feet from the pole. Though these guy lines and power lines are not particularly high, they pose a minor collision hazard for birds in flight. The poles would be placed along a high ridgeline, the type of topography often followed by migrating birds; however, birds in migration fly at much greater heights. The proposed 70-foot-tall monopole would not use guy wires; the monopole would pose a minimal collision risk to migrating birds. If the monopole is required to be equipped with FAA obstruction hazard lighting for aviation safety, LED tower lights of flashing white and/or red lights will be used whenever permissible. These lights are less attractive to night-migrating birds than steady-burning red lights. Impacts would be less than significant and no mitigation measures would be required for Project operations.

- b) **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Less Than Significant with Mitigation Incorporated. Sensitive natural communities are defined as those vegetation communities that are being tracked by California Department of Fish and Wildlife (CDFW) CNDDDB, and critical habitat is designated by the U.S. Fish and Wildlife Service (USFWS) under the authorities of the Endangered Species Act (ESA).

Sensitive natural communities recorded within about 1 mile from Project Site INDWT include:

- California Walnut Woodland

- Southern Coast Live Oak Riparian Forest
- Designated critical habitat for the coastal California gnatcatcher

Construction

California Walnut Woodland:

The Southern California Black Walnut Woodland community occurs as solid stands or as a mixed woodland community, most commonly intermixed with coast live oak. It usually grows 10 to 30 feet in height, forming open or closed canopy stands on north-facing slopes and in mesic canyons, providing important wildlife habitat. This community is threatened by loss of habitat due to urbanization and is affected by overgrazing and increasing drought conditions. The California Walnut Woodland within the Project study area is contiguous with some of the best remaining stands in Los Angeles County. Trees are scattered on slopes with tree density generally increasing southwest of the proposed facilities site and in canyon bottoms. The understory includes primarily non-native grasses, although a variety of coastal sage scrub and chaparral shrubs are often scattered about. Within the Project Site INDWT, the understory of non-native grasses has undergone extreme trampling by livestock, even to the point of denuding the soil.

No trees or other native perennial vegetation would be removed for development of the proposed facility at Site INDWT. Ground disturbance to construct the power run, with either buried or overhead electric line, would be restricted to locations where perennial vegetation would not be lost (i.e., within or adjacent to the roadbed). However, individual plants may be present along the access road and may need to be trimmed or removed to accommodate Project needs. These potential impacts to native vegetation communities, and especially large trees, would be considered potentially significant. With the implementation **BIO MM 9 Protect Native Vegetation and Common Wildlife**, most, if not all, perennial vegetation would be preserved on site. Construction workers would be informed of the importance of avoiding impacts to all trees. (**BIO MM 2 Worker Environmental Awareness Program**). **BIO MM 9** restricts vehicles to existing roads, and parking and use of heavy equipment near (under the drip line) walnut trees would be precluded to prevent soil compaction and protect the tree's root system; trenches would be sited to minimize disturbance to tree roots. **BIO MM 9** requires that large trees be avoided. Any loss of vegetation from sensitive woodland communities would be the minimum necessary as demarked by the Biological Monitor and would not compromise the integrity of the sensitive community. With implementation of mitigation measures, impacts would be less than significant.

Southern Coast Live Oak Riparian Forest:

The Southern Coast Live Oak Riparian Forest is found in canyons with permanent or ephemeral streams, where dense stands of trees often form interlocking canopies. Other riparian trees may be present including arroyo willow, seep willow, sycamore, and cottonwood. No riparian habitat is located at Site INDWT. The only riparian habitat within the study area is in association with the ephemeral drainage in Tonner Canyon near the junction of the access road and the paved road in the bottom of the canyon, a potential location where electric tie-in may occur. The vegetation along the narrow wash channel includes coast live oak, California black walnut, California sycamore, and scattered riparian scrub with arroyo willow. However, many of the trees in this portion of Tonner Canyon are large ornamentals.

No Project construction activities would be conducted within the wash channel or riparian zone. There would be no removal of or impact to riparian habitat, and best management practices would be implemented to control erosion and sedimentation of excavated soil from stormwater runoff. No impact would occur and no mitigation measures are required.

Designated critical habitat for the coastal California gnatcatcher:

The evaluation of potential impacts to designated or proposed critical habitat requires the assessment of whether specific physical or biological features (PBFs)² are present, and then the assessment of whether Project-related activities would impact those PBFs and the function of critical habitat. Gnatcatcher critical habitat PBFs/PCEs include various coastal sage scrub vegetation communities and their successional stages; also included are non-sage scrub habitats such as chaparral, grassland, and/or riparian areas in proximity to the sage scrub habitats that provide space for dispersal, foraging, and nesting. Critical habitat does not include man-made structures (such as buildings, aqueducts, airports, roads, and other paved areas and the land on which they are located).

The ridgeline followed by the access road southwest from the proposed location for the communications facility forms a part of the border of designated gnatcatcher critical habitat. Critical habitat extends to the bottom of Tonner Canyon and includes the junction of the access road with the paved road in Tonner Canyon. The facilities location is not within critical habitat, being about 0.3 mile away. As the access road/powerline run proceeds southwest from the facilities location into critical habitat, vegetation becomes denser but is made up mostly of oak and walnut trees. Coastal sage scrub vegetation elements are better represented in this portion of the Project area, although no habitat patch that could be classified as coastal sage scrub community could be located. These scattered shrubs are too sparse to support nesting gnatcatchers, although they may provide potential foraging and dispersal habitat.

The proposed power run may or may not pass through designated critical habitat, depending on the selection of the route. If trenching is required for burying the line, or if wooden poles are erected, ground disturbance associated with these activities would be within or adjacent to the roadbed where potential loss of perennial vegetation would be minimized. No patches of coastal sage scrub vegetation and gnatcatcher critical habitat PBFs are within the Project site (i.e., construction footprint). Therefore, construction of the LMR facility and associated power run would not be expected to result in the loss of native shrubs or loss of PBFs within that portion of the Project site within critical habitat. However, the Project would facilitate placement of additional man-made structures within critical habitat. Any loss of shrubs at Site INDWT due to an unavoidable situation (e.g., required placement of a power pole at a bend in the road) would be minimal (e.g., perhaps one or two individual plants). Potential impacts to gnatcatcher critical habitat would be less than significant. However, mitigation measures are proposed in order to further reduce potential impacts. The application of **BIO MM 8 Biological Monitoring** would require the Biological Monitor to delineate habitat that is to be protected and ensure that the loss of native plants would be the minimum necessary. Any potential loss of perennial vegetation would also be minimized with the application of **BIO MM 9 Protect Native**

² Updated 2016 critical habitat regulations [81 Federal Register 7214] replace the term “primary constituent element” (PCE) with “physical or biological features” (PBF).

Vegetation and Common Wildlife and BIO MM 12 Coastal California Gnatcatcher Protection. This loss of perennial plants would not compromise the integrity or continued level of function of critical habitat because coastal sage scrub vegetation community (gnatcatcher nesting habitat) is not present, and the plants would be within the disturbed roadway corridor.

The following mitigation measures would be implemented during Project construction to reduce potentially significant impacts to California walnut woodland and to further reduce less than significant impacts to coastal California gnatcatcher habitat:

BIO MM 1 Mitigation Monitoring and Reporting Plan

BIO MM 2 Worker Environmental Awareness Program

BIO MM 3 Biological Compliance Reporting

BIO MM 8 Biological Monitoring

BIO MM 9 Protect Native Vegetation and Common Wildlife

BIO MM 10 No Pets

BIO MM 11 Site Access

BIO MM 12 Coastal California Gnatcatcher Protection

BIO MM 19 Trenches and Holes Management

- a) The contractor shall cover or backfill all trenches the same calendar day they are opened, where practicable.
- b) If trenches or holes cannot be closed the same day they are made, covers shall be firmly secured at ground level in such a way that small wildlife cannot slip beneath. At sites that require the presence of a biological monitor, trench covers shall be approved by the monitor.
- c) Open trenches shall be inspected regularly throughout the day and prior to filling to remove any trapped common wildlife (e.g., small mammals, reptiles, amphibians) and to check for the presence of protected wildlife species (e.g., arroyo toad) at Project sites that require the presence of a biological monitor.
- d) If a protected wildlife species is present in the trench, the on-site biological monitor shall contact USFWS immediately, ensure the protected species is not in immediate danger, and wait for instruction by USFWS.
- e) Covered trenches and holes at sites where biological monitors are present are to be inspected by the monitor at the end of the work day and prior to initiating construction activities the next day.
- f) In locating trenches or holes, minimize disturbance to natural vegetation, including plant root systems.
- g) Prior to trenching, mark the construction disturbance limits and monitor for adherence to these boundaries.

Operational. Project operation would not entail any activities that could result in a substantial adverse effect on sensitive natural communities. Operational activities would include occasional routine inspections, maintenance, and repairs, and would not entail ground disturbing activities or large numbers of personnel traveling to and from the site on a regular basis. Impacts would be less than significant and no mitigation measures would be required for Project operations.

- c) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Impact. The definition of wetlands provided in Section 404 of the Clean Water Act and as applied by the U.S. Army Corps of Engineers and the USEPA implementing the Clean Water Act is: “Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” No federally protected wetlands have been identified within or adjacent to the proposed Project site and study area.

The USFWS National Wetland Inventory mapped Freshwater Forested/Shrub Wetlands within the Project study area. However, this wetland type is restricted to ephemeral drainages that would likely be classified under the Clean Water Act as Waters of the United States but not as protected wetlands. Best management practices would be implemented to control erosion and sedimentation of excavated soil from stormwater runoff into Waters of the United States.

- d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

Less Than Significant Impact.

Construction. The Los Angeles County General Plan uses the term habitat linkage and defines it as an area that possesses sufficient cover, food, forage, water, and other essential elements to serve as a species’ movement pathway between two or more larger areas of habitat. Depending on the species, linkages vary in size. Wildlife corridors can be applied at a landscape level or at a very fine species-specific scale depending on the size and ecological requirements of the species being considered. For this reason, wildlife corridor boundaries have not been officially designated. Linkages are estimated wildlife routes most commonly taken between open space areas that serve as core habitat.

Project Site INDWT is located with the Los Angeles County-designated Puente Hills Significant Ecological Area (SEA). SEAs provide core habitat to support wildlife movement among large open spaces and through bottleneck areas surrounded by urban development and within fragmented landscapes of scattered open space within rural settings. The continued presence of large mammals is dependent on retaining linkage corridors among open space blocks. Evidence of significant wildlife movement throughout the Puente Hills SEA has been documented in a two-year carnivore study commissioned by the Santa Monica Mountains Conservancy. By virtue of these linkages and a complex of interconnected habitat units throughout the hills, the Puente-Chino Hills Wildlife Linkage provides fragile connections for wildlife across a landscape of

scattered open space and functions as both an important wildlife linkage and resident habitat area for regional wildlife populations. Site INDWT is located on a high ridge line about 0.25 mile east of SR 57. SR 57 follows Brea Canyon and is an impediment to wildlife movement across the SEA and considered a choke-point where opportunities for wildlife movement across the landscape are limited.

Construction at Project Site INDWT may cause temporary and minor impacts to wildlife movements (including deer, mountain lion, coyote, small mammals, reptiles, and birds) in the vicinity of the site due to increased human presence and noise associated with construction activities. Open trenches could impede small mammals and reptiles moving within or through the site. Increased use of roads, even on a temporary basis for construction-related activities, could impede or cause injury/mortality to various species of wildlife.

The proposed Project site is located along an existing dirt road near two water tanks in an area heavily used by livestock. The proposed facilities at Site INDWT represent a small point within a larger landscape having extensive opportunity for wildlife to move around the facility. Construction of a monopole at the site would result in minimal (if any) loss of native perennial vegetation without causing any change in forest stand structure or condition. Land would not be converted from a natural use to a developed use, and existing roads would not be upgraded in road-class. Due to the nature of the Project, impacts to wildlife movement would be minimal to none. The proposed Project would not introduce new disturbances to wildlife corridors or otherwise interfere with wildlife movement. Development of Site INDWT would not alter the character of the open space or otherwise exacerbate the existing challenges for wildlife movements within the Puente-Chino Hills Wildlife Linkage. Construction of Project facilities may have temporary and minor effects to wildlife movement on a very fine scale but would have no effect at a landscape level.

No occurrences of wildlife nursery sites or colonial bird nesting sites are recorded in the CNDDDB within 3.0 miles of Site INDWT.

The proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, and would not impede the use of native wildlife nursery sites. Although construction of Site INDWT has a potential for less than significant impacts to wildlife movement across the landscape, these impacts would be further reduced through implementation of the following mitigation measures:

BIO MM 1 Mitigation Monitoring and Reporting Plan

BIO MM 2 Worker Environmental Awareness Program

BIO MM 3 Biological Compliance Reporting

BIO MM 4 Site Sanitation

- a) The contractor shall keep a regulated work area free of litter and trash. Trash and discarded food items shall be contained within an appropriate receptacle and removed daily to avoid attracting wildlife to the construction site, contribute to habituation of wildlife to the presence of humans, or to attract avian or mammalian predators to the area.

- b) All construction debris (including nuts, bolts, small pieces of wire, etc.) shall be cleaned up (e.g., trash removed, scrap materials picked up) each day that work is conducted to minimize the likelihood of wildlife visiting the site and consuming microtrash, discarded food, or other substances.

BIO MM 5 Hazardous Materials Management

- a) A toxic substance management and spill response plan shall be prepared by the contractor.
- b) Hazardous materials shall be contained; spills shall be prevented; and any spills at the Project site or along access roads shall be contained and cleaned up immediately.
- c) All construction vehicles are required to carry at least one spill response kit.
- d) Any spills shall be accounted for in reports prepared by the biological/environmental monitor.

BIO MM 8 Biological Monitoring

BIO MM 9 Protect Native Vegetation and Common Wildlife

BIO MM 10 No Pets

BIO MM 11 Site Access

BIO MM 19 Trenches and Holes Management

Operational. The proposed facilities at Site INDWT represent a small point within a larger landscape having extensive opportunity for wildlife to move around the facility. Due to the nature of the Project, impacts to wildlife movement would be minimal to none. The proposed Project would not introduce new disturbances to wildlife corridors or otherwise interfere with wildlife movement. Operation of Site INDWT would not alter the character of the open space or otherwise exacerbate the existing challenges for wildlife movements within the Puente-Chino Hills Wildlife Linkage. Impacts would be less than significant and no mitigation measures would be required for Project operations.

- e) **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

Less Than Significant with Mitigation Incorporated.

Construction. Local policies and ordinances protecting biological resources that are relevant to the proposed Project include the Los Angeles County General Plan and the County's Puente Hills SEA. Impacts to these are discussed in the following paragraphs.

County of Los Angeles General Plan: The Los Angeles County General Plan (County of Los Angeles, 2015), adopted in October 2015, includes a Conservation and Natural Resources (C/NR) Element that guides the long-term conservation of natural resources and preservation of available open space areas in unincorporated Los Angeles County. Goal C/NR3 of this element calls for permanent, sustainable preservation of genetically and physically diverse biological resources and ecological systems including habitat linkages, forests, coastal zone, riparian habitats, streambeds, wetlands, woodlands, alpine habitat, chaparral, shrublands, and SEAs. The policies or portions of policies potentially affecting biological resources at Project sites include:

- Policy C/NR 3.1. Conserve and enhance the ecological function of diverse natural habitats and biological resources
- Policy C/NR 3.8. Discourage development in areas with identified significant biological resources such as SEAs
- Policy C/NR 3.9 (abridged). Consider the following in the design of a project that is located within an SEA, to the greatest extent feasible:
 - Preservation of biologically valuable habitats, species, wildlife corridors, and linkages
 - Protection of sensitive resources on the site within open space
 - Placement of the development in the least biologically sensitive areas on the site (prioritize the preservation or avoidance of the most sensitive biological resources on site)
 - Consideration of the continuity of on-site open space with adjacent open space in project design

Los Angeles County Significant Ecological Areas Ordinance (County of Los Angeles, Department of Regional Planning. 2014): An SEA designation is given to land that contains irreplaceable biological resources. Individual SEAs include undisturbed or lightly disturbed habitat supporting valuable and threatened species, linkages, and corridors to promote species movement and are sized to support sustainable populations of its component species. The objective of the SEA Program is to preserve the genetic and physical diversity of the county by designing biological resource areas capable of sustaining themselves into the future. The SEA ordinance is the primary mechanism that the County uses to regulate development within the SEAs. Properties mapped within, or partially within, an adopted SEA are subject to the rules in the SEA ordinance, in addition to other applicable regulations of the zoning code. Conditional use permits are required for most development within SEAs to protect resources contained in SEAs from incompatible development as specified in the County General Plan.

Puente Hills SEA: SEAs play a critical role in not only identifying Los Angeles County's biotic diversity but in providing an opportunity to connect these areas with other areas of biological importance. The Puente Hills SEA contains walnut woodland habitat, important wildlife corridors between the Puente Hills and the Chino Hills, and many important riparian drainages. This SEA is a regionally significant open space that represents the Los Angeles County portion of a continuous series of natural open space within the Puente Hills in Los Angeles County, portions of the Chino Hills in Los Angeles, Orange, San Bernardino and Riverside counties, and additional connections south into the Santa Ana Mountains and San Diego County. Recommended management practices include limiting development, retaining rare vegetation communities with adequate buffers, and retaining connectivity within the SEA.

The construction of Site INDWT may conflict with the following policies of the Los Angeles County General Plan: C/NR3.1, C/NR 3.8, and C/NR 3.9 which promote protection of biological resources and site-sensitive design. Construction activities could potentially degrade habitat values and disrupt wildlife movements. Impacts would be potentially significant. The application

of mitigation measures would minimize on-site habitat degradation so that there would be no change in the function of wildlife movement corridors. With mitigation measures, the construction of Site INDWT would not conflict with specific SEA management strategies. Impacts would be less than significant.

The following mitigation measures would be implemented during Project construction to reduce potentially significant impacts to local policies or ordinances protecting biological resources:

BIO MM 1 Mitigation Monitoring and Reporting Plan

BIO MM 2 Worker Environmental Awareness Program

BIO MM 3 Biological Compliance Reporting

BIO MM 4 Site Sanitation

BIO MM 5 Hazardous Materials Management

BIO MM 8 Biological Monitoring

BIO MM 9 Protect Native Vegetation and Common Wildlife

BIO MM 10 No Pets

BIO MM 11 Site Access

BIO MM 19 Trenches and Holes Management

Operational. The presence of a 70-foot-tall monopole and associated facilities are an addition to the existing water tanks and would not change the nature of the existing on-site impacts. There would be no change in the function of wildlife movement corridors. The operation of Site INDWT would not conflict with specific SEA management strategies. Impacts would be less than significant and no mitigation measures would be required for Project operations.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. No Habitat Conservation Plan or Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan is applicable to Project Site INDWT.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
archaeological resource pursuant to § 15064.5?				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

Based on records searches at the South Central Coastal Information Center (SCCIC) (SCCIC 2017) and intensive field surveys of the entire direct area of potential effects (APE) (Peyton 2018), no historical resources are within the ground-disturbing areas of the Site INDWT Project area. The only cultural resources identified within the vicinity of the Project area are three isolated archaeological resources, all of which are situated within the 1-mile indirect APE and approximately 0.42 to 0.54 mile from the Site INDWT Project area, and none of which meet criteria for listing in the National Register of Historic Places or the California Register of Historical Resources.

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

No Impact. No historical resources are within the ground-disturbing areas of the Site INDWT Project area.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

No Impact. No archaeological resources are within the ground-disturbing areas of the Site INDWT Project area.

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

Less than Significant with Mitigation Incorporated. The Site INDWT Project area is situated within an area of Los Angeles and Orange counties that is sensitive for paleontological resources. Previous investigations and paleontological mapping show that the Chino Hills are underlain by the La Vida Shale, Soquel Sandstone, and Yorba Shale Members of the Monterey Formation, the Sycamore Canyon Formation, and the Repetto and Pico Members of the Fernando Formation. These Formations have yielded the fossilized remains of middle Miocene to early Pleistocene land plants and marine microfossils (foraminifers), algae (sea weed), invertebrates (snails, tusk shells, clams, cephalopods, barnacles, crabs, shrimps, sand dollars, heart urchins), and/or vertebrates (sharks, rays, fishes, turtles, birds, desmostylids, whales) at numerous localities in the Chino Hills.

In addition, at depths as shallow as 5 feet or less, younger alluvium has produced the fossilized bones and teeth of extinct species of Pleistocene land mammals, including ground sloths, mammoths, camels, and bison, in the Chino Hills at Tonner Canyon and in the Chino Valley.

Construction. Based on the shallow underlying rock units, scientifically important fossil remains similar to those noted above have a high potential to be encountered within the Site INDWT Project area during tower and power pole construction and / or trenching, disturbance of which would be a potentially significant impact; therefore, the following mitigation measures are required during all ground-disturbing activities, which would reduce the impact to a less than significant level:

CUL MM 6 Potential Paleontological Resources Plan

A Paleontological Resources Monitoring Plan shall be developed and approved prior to construction to guide the activities of monitors during ground-disturbing activities. The plan would include, but not be limited to, a description of the Project location, the regulatory framework, site-specific impact mitigation requirements designed to reduce impacts to less than significant, specific locations and construction activities requiring monitoring and/or spot checking, and procedures to follow for construction monitoring and fossil discovery and recovery, and a repository agreement with the Natural History Museum of Los Angeles County or other accredited repository. Mitigation measures that may be implemented to ensure that impacts to paleontological resources would be reduced to less than significant may include but are not limited to the following:

- a) Worker awareness training on paleontological resources presented to construction personnel prior to the start of construction. The training should include at minimum, the following:
 - The types of fossils that could occur at the Project site
 - The procedures that should be taken in the event of a fossil discovery
 - Laws protecting paleontological resources
 - Penalties for destroying or removing paleontological resources.
- b) Paleontological monitoring during ground disturbance at all sites with moderate/unknown or high paleontological potential
- c) Salvage of significant fossil resources
- d) Screen washing of matrix samples for microfossils
- e) Laboratory preparation of recovered fossils to the point of identification and curation
- f) Identification of recovered fossils to the lowest possible taxonomic order
- g) Curation of significant fossils at the Natural History Museum of Los Angeles County or other accredited repository

- h) Preparation of a final monitoring report that includes at a minimum the dates of field work, results of monitoring, fossil analyses, significance evaluation, conclusions, locality forms, and an itemized list of specimens.

The Plan shall be submitted to the Authority for review and approval and finalized at least 14 days prior to the start of construction.

CUL MM 7 Paleontological Resources Monitoring

Paleontological monitoring shall be conducted by a qualified paleontological monitor who has demonstrated experience in the collection and salvage of fossil materials. An undergraduate degree in geology or paleontology is preferable but is less important than documented experience performing paleontological monitoring and mitigation. The monitor will work under the supervision of a Principal Paleontologist.

The qualified professional paleontological monitor shall be present during ground disturbance at all sites with moderate/unknown or high paleontological potential and as specified in the Paleontological Resources Monitoring Plan prepared in accordance with CUL MM 6. The monitor shall be present during all subsurface excavation for tower or monopole foundations and during grading for access roads and structure foundations. Based on the specific site conditions observed during monitoring (type of sediment impacted, previous disturbances, nature of site conditions), the Principal Paleontologist may reduce or increase monitoring efforts in consultation with the Agency.

In the event that a previously unidentified paleontological resource is uncovered, the following actions shall be taken:

- 1) All ground-disturbing work within 50 feet of the discovery shall be halted. A qualified paleontologist shall divert or direct construction activities in the area of an exposed fossil in order to facilitate evaluation and, if necessary, salvage of the exposed fossil. Work shall not resume in the discovery area until authorized by the qualified paleontologist.
- 2) The paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, no further effort shall be required.
- 3) If the resource cannot be avoided and may be subject to further impact, the paleontologist shall evaluate the resource and determine whether it is “unique” under CEQA, Appendix G, Part V. If the resource is determined not to be unique, work may commence in the area.
- 4) If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with LA-RICS Authority staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource. Preservation in place (i.e., avoidance) is the preferred method of ensuring that no substantial adverse impacts occur to the resource and shall be required unless other equally effective methods are available. Other methods include ensuring that the fossils are scientifically recovered, prepared, identified, catalogued, and analyzed according to current professional standards.

- 5) Due to the small nature of some fossils, a fine mesh screen may be used at the discretion of the paleontologist to screen matrix test samples on site during monitoring. Additionally, bulk matrix samples may be collected and transported to a laboratory facility for processing.
- 6) Provisions for preparation and identification of any fossils collected shall be made before donation to a suitable repository.
- 7) All recovered fossils shall be curated at the Natural History Museum of Los Angeles County, or a local accredited and permanent scientific institution according to Society of Vertebrate Paleontology standard guidelines standards. Work may commence upon completion of the appropriate treatment and the approval from the Authority.

Operational. After completion of construction, no further ground disturbing activities that could present a potential impact to paleontological resources would occur. No impacts would occur as part of site operations, and no mitigation measures would be required.

d) Disturb any human remains, including those interred outside dedicated cemeteries?

No Impact. No human remains are known to occur within the ground-disturbing areas of the Site INDWT Project area. While no impacts are expected to occur, the following mitigation measure would be implemented during construction in the unexpected event that human remains are discovered:

CUL MM 4: Unexpected Discovery of Human Remains

In the event that human remains are unexpectedly encountered, the following procedures shall immediately be followed. This guidance is also provided on the NAHC's website at <http://nahc.ca.gov/resources/discovery-of-native-american-human-remainswhat-to-do/>.

- 1) All construction activity shall stop immediately, and the Project Archaeologist shall be notified. The Project Archaeologist will contact the Los Angeles (or applicable) County Coroner. The list of California Coroners can be found on the Native American Heritage Commission's website at <http://nahc.ca.gov/2015/06/implementation-of-ab52-sample-lettersrequest-for-formal-notification-and-request-for-consultation/>.
- 2) The Coroner has two working days to examine human remains after being notified by the responsible person. If the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission.
- 3) The Native American Heritage Commission will immediately notify the person it believes to be the most likely descendent of the deceased Native American.
- 4) The most likely descendent has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.
- 5) If the descendent does not make recommendations within 48 hours the owner shall reinter the remains in an area of the property secure from further disturbance, or;

- 6) If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the Native American Heritage Commission.

3.6 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) 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 waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- a) i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

No Impact. The site is not located within an Alquist-Priolo Earthquake Fault Zone nor is it located on any other known active earthquake fault (California Department of Conservation 2018a). Therefore, the site is not subject to rupture of a known fault.

a) ii) Strong seismic ground shaking?

Less Than Significant Impact. The Project site and the entire Southern California region are subject to some degree of seismic activity. The Seismic Hazards Mapping Act and the California Building Code (CBC) require preparation of a geotechnical report for each new construction site to evaluate and assess the geologic hazards that may be present. The city and/or county in which a project is located is responsible for reviewing and approving any such report prior to construction. Design and construction of the site and its elements would be required to conform to the current (CBC) seismic design provisions and would be designed to minimize seismic hazards. Site-specific seismic hazards would be evaluated as part of the geotechnical investigation which would be completed during design phase of the Project. The geotechnical report would address all geologic hazards including expected ground motions at the site from known active faults. The report would identify geotechnical and structural design requirements as prescribed by the most current version of the CBC, including applicable County amendments, to ensure that structures can withstand ground accelerations expected from known active faults to minimize seismic hazards. These requirements would be incorporated into site design. The County would review and approve the geotechnical report and site design before issuing a building permit. Nothing about the proposed Project would exacerbate the risk of seismic activity.

Construction. Facility designs made in response to the findings of the geotechnical investigation regarding geologic hazards would minimize potential hazards from seismic shaking during construction activities.

Operational. Facility designs made in response to the findings of the geotechnical investigation regarding geologic hazards would minimize potential hazards from seismic shaking to the completed structures.

a) iii) Seismic-related ground failure, including liquefaction?

No Impact. The Project site is not located in an area identified as subject to liquefaction (California Department of Conservation 2018b).

a) iv) Landslides?

Less Than Significant Impact. Landslides generally occur in steep, hilly terrain and in locations where the underlying geology is such that it may fail and slide downslope, either from natural process (heavy rain, seismic shaking, erosion) or man-made conditions from site construction. The Proposed Project site is in an area mapped as having the potential for a landslide occurrence based on known geologic conditions (California Department of Conservation 2018b).

Construction. Construction activities have the potential to trigger a landslide. As discussed in Section 3.6 a) ii), design level geotechnical evaluation be completed and report submitted to the County as required by the Seismic Hazards Reduction Act and the CBC. The geotechnical report would assess site-specific potential for landslides and make recommendations on the design of the facility to minimize landslide hazards. The geotechnical investigation will identify whether a landslide potential exists and can help to characterize the size of the potential landslide. The report will identify site-specific recommendations to be made as part of design to reduce or eliminate any landslide hazards. The County would review and approve the geotechnical report and site design before issuing a building permit.

Operational. As described above, the geotechnical report that would be required by the County would assess site-specific potential for landslides and make recommendations on the design of the facility to minimize landslide hazards. The report will identify site-specific recommendations to be made as part of design to reduce or eliminate any landslide hazards. The County would review and approve the geotechnical report and site design before issuing a building permit.

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

Less Than Significant Impact.

Construction. Ground-disturbing activities would expose soils and elevate the potential for erosion. The potential for wind erosion would be abated by application of water or other BMPs applicable to the site. The primary potential for erosion from construction at the proposed Project site would be associated with runoff because the site is located on a slope. The building permitting process would include the review of proposed drainage for the site. Building plans must include positive drainage away from the facility and analyses of projected surface runoff into local natural drainages. The Los Angeles County Department of Public Works (LACDPW), Water Resources Division, *Hydrology Manual* (LACDPW 2006) provides guidance on requirements for drainage at a Project site to ensure grading plans maintain proper drainage from a site. For a site on a hilltop, grading plans must include analysis of runoff potential, estimated projected flows of newly constructed hard surfaces, and determination of the potential for erosion at constructed outflow areas. Grading plans, as required, may include features to control runoff and eliminate the potential for erosion at the outflow location. The site would be constructed using BMPs to prevent erosion and runoff.

Operational. Operation of the proposed Project would not include any ground-disturbing activities and therefore would have no potential for substantial erosion or loss of topsoil.

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

Less Than Significant Impact. The proposed Project site has been identified as being within a potential landslide area as discussed under 3.6 a) iv). Therefore, the ground under the site has the potential to become unstable from Project site activities. As described in Section 3.6.a) iv), the site-specific geotechnical investigation that would be required by the County prior to their issuing a site construction permit would identify any hazards associated with unstable soils or geologic units and, if needed, address any facility design features needed to address the potential hazard.

Construction. Facility designs made in response to the findings of the geotechnical investigation regarding unstable soils or geologic units would address potential hazards from landslides during construction activities.

Operational. Facility designs made in response to the findings of the geotechnical investigation regarding unstable soils or geologic units would address potential hazards from landslides to the completed structures.

d) 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?

Less Than Significant Impact. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated changes in the moisture content. While expansive soils are not expected to be encountered on the Project site, the site-specific geotechnical investigation that would be required by the County prior to their issuing a site construction permit would identify any expansive soils that are present and, if needed, address any facility designs needed to address the potential hazard.

Construction. If expansive soils are identified as being a potential concern at this location, facility designs made in response to the findings of the geotechnical investigation would address potential hazards from expansive soils during construction activities.

Operational. If expansive soils are identified as being a potential concern at this location, facility designs made in response to the findings of the geotechnical investigation would address potential hazards from expansive soils to the completed structures.

e) 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 waste water?

No Impact. The Project would not include the installation or use of septic tanks or other wastewater disposal systems; therefore, soil suitability to support such systems is not relevant to this Project.

3.7 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant		No Impact
		with Mitigation Incorporated	Less Than Significant Impact	
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION:

Greenhouse gas (GHG) emissions from construction of the proposed Site INDWT were calculated using the California Air Pollution Control Officers Association CalEEMod v.2016.3.2 (CAPCOA 2017) and emissions from operation of the proposed site were calculated using California Air Resources Board EMFAC2014 and the SCAB fleet emissions factors for a 2018 construction year. The SCAQMD threshold for GHG emissions that is used in this analysis includes construction emissions amortized over 30 years and added to operational GHG emissions (SCAQMD 2008b). Therefore, the analysis below is not separated by construction and operational phases of the Project.

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

Less Than Significant Impact. Site INDWT is located in the SCAB, and the SCAQMD thresholds of significance for GHG emissions are applicable to this project. The SCAQMD has established a

significance threshold of 10,000 metric tons per year for carbon dioxide (CO₂) equivalents (MTCO₂e) including nitrogen dioxide and methane from industrial facilities (SCAQMD 2008a).

Direct and indirect GHG emissions from construction and operation of LMR sites were estimated for the proposed INDWT site. Total annual GHG emissions were estimated using CalEEMod v.2016.3.2 for construction emissions, EMFAC2014 for maintenance vehicle emissions, and SCAQMD CEQA Handbook for emission from generator testing and HVAC unit operation (see Appendix C). Annual emissions were estimated to be 42.5 metric tons, which is substantially below the SCAQMD GHG threshold of 10,000 metric tons (LA-RICS 2016).

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

Less Than Significant Impact. Assembly Bill (AB) 32 (Chapter 488, States of 2006), the Global Warming Solutions Act of 2006 requires reporting of GHG emissions by major sources. The California Air Resources Board (CARB) has established the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. Industrial facilities that emit a SCAQMD recommended 10,000 MTCO₂e or more of GHG emissions per year, typically from stationary sources such as the proposed diesel generator at Site INDWT, are required to submit annual reports to CARB. SCAQMD has proposed a lower threshold (3,000 MTCO₂e) for residential and commercial projects with emissions from mobile sources traveling to and from a project site.

The Project site is located within an unincorporated area of Los Angeles County, with a segment of proposed electrical line alignment potentially located within Orange County limits; however, the GHG generating activities would occur primarily within the unincorporated area of Los Angeles County. The Unincorporated Los Angeles County Community Climate Action Plan 2020 (LADRP 2015) projects a 10-percent reduction in GHG emission from 2013 levels in unincorporated areas of the county will be necessary to be consistent with AB 32 and has set a goal of 11-percent emissions reductions for the period from 2013 to 2020. Orange County has not developed a similar plan.

For the proposed Site INDWT, 90.3 percent of the GHG emissions would be associated with the electrical needs for equipment operation; and the remaining 9.7 percent would be from construction and maintenance of the facility. Compliance with the SCAQMD significance threshold for GHGs would not trigger mandatory reporting of Project emissions to CARB and demonstrates the proposed Project's contribution to statewide and Unincorporated Los Angeles County emissions, which are trending downward for transportation and electric power sources. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

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

Less Than Significant Impact. Diesel fuel is the primary hazardous material at the site.

Construction. During construction diesel fuel would be required on site to operate heavy equipment. Generally only the fuel in the equipment fuel tanks would be required. However, if equipment requires refueling while on site, it would be done in accordance with the Hazard Assessment Safety Action Plan (HASAP) for the LA-RICS LMR and Long Term Evolution programs.

The HASAP include procedures for the handling, storage, use, and disposal of hazardous materials at LA-RICS sites.

Operational. The facility would include a diesel generator and an up to 4,000-gallon diesel fuel tank. Transportation and storage of diesel fuel on site for the generator would occur during site operations. The use, transport, and disposal of hazardous materials and wastes are required to occur in accordance with federal, State, and local regulations. In accordance with such regulations, the transport of hazardous materials and wastes can occur only with transporters who have received training and appropriate licensing.

Accidental spills or releases associated with the on-site fuel storage tank would be controlled through compliance with the Spill Prevention, Control, and Countermeasure (SPCC) plan that would be prepared in accordance with 40 Code of Federal Regulations (CFR) Part 112 and as required by California's Aboveground Petroleum Storage Act (APSA). Worker education would be conducted and emergency response plans would be in place as required by the SPCC.

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

Less Than Significant Impact.

Construction. The amount of hazardous material that could be accidentally released to the environment from the operation of construction equipment would be minimal. Use of hazardous materials required to operate construction equipment would be subject to the requirements of the LA-RICS HASAP as described in the analysis in under 3.8 a) above.

Operational. The Project may include an up to 4,000-gallon double-walled diesel fuel tank. The fuel tank would meet National Fire Protection Act standards for flammable liquids and seismic hazards, and would be installed in accordance with California Fire Code and the APSA. Secondary containment (construction of concrete pad with a berm to contain potential diesel fuel spill) will be in place. If the diesel fuel tank is greater than 660-gallon capacity, or fuel has a storage greater than 1,320 gallons, an SPCC Plan would be prepared in accordance with 40 Code of Federal Regulations (CFR) Part 112 and as required by the APSA. Site operations would include refilling the on-site diesel generator periodically. Refueling would be done in accordance with the SPCC. Construction and operation of the Project would not create or result in any reasonably foreseeable upset or accident conditions.

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

No Impact. Site INDWT is not located within one-quarter mile of an existing or proposed school.

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

No Impact. The proposed Project site is not located on a list of hazardous materials sites.

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

No Impact. The proposed Project site is not located within an airport land use plan area or within two miles of a public or public use airport. No impacts would occur.

- f) **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?**

No Impact. The proposed Project site is not located within the vicinity of a private air strip.

- g) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No Impact. The Project facilities would not interfere with an adopted emergency response plan or emergency evacuation plan. The location of the proposed Project site has been fully coordinated with county emergency responders to ensure the location would not interfere with emergency response vehicles or facilities. The intent of the proposed Project is to enhance communication among emergency responders and facilitate better coordination among various agencies responding to emergencies. The proposed Project would enhance implementation of emergency plans and would result in beneficial operational impacts.

Proposed Project construction activities would be fully coordinated with the property owners. Installation of hardware and integration of software for LMR equipment is planned so as to minimize disruption, if any, of local emergency responders' communications. No impairment of or interference with an emergency response plan or emergency evacuation plan would occur.

- h) **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?**

Less than Significant Impact with Mitigation. California PRC Sections 4201-4204 and Government Code Sections 51175-51189 require identification of fire hazard severity zones within the State of California. Fire prevention areas considered to be under State jurisdiction are referred to as "State responsibility areas." In State responsibility areas, the California Department of Forestry and Fire Protection is required to delineate three hazard ranges: moderate, high, and very high. Site INDWT is located within a State Responsibility Area Very High Fire Hazard Severity Zone.

Construction. Construction activities in this area represent an elevated risk of igniting a wildland fire, resulting in a potentially significant impact. Therefore, the following mitigation measure would be required during construction, which reduces the impact to less than significant.

HAZ MM 3: Fire Management Plan

Prior to construction activity, the Authority must work with the agency responsible for fire protection in the jurisdiction where the site is located to develop and implement a fire management plan for use during construction activity. The plan will identify Project locations,

project descriptions, anticipated construction activities, limitation of activities during periods of elevated fire risk (e.g., “red flag” days), level of suppression equipment required on site, training requirements, and points of contact.

With implementation of **HAZ MM 3: Fire Management Plan**, impacts would be less than significant.

Operational. Proposed Project facilities would be unmanned, equipment would be maintained within a shelter, and the diesel generator would be operated only during a power outage and periodically for routine maintenance. The risk of starting a fire from operational activities would be minimal. Operation of the proposed Project would have a less than significant impact.

3.9 HYDROLOGY AND WATER QUALITY

Would the project:	Less Than Significant			
	Potentially Significant Impact	with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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 preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

a) **Violate any water quality standards or waste discharge requirements?**

No Impact. During site construction, any potential for surface water runoff to affect water quality would be controlled by required BMPs. BMPs are intended to reduce run-on and runoff of stormwater and control sediment runoff through placement of hay bales, sand bags, and fiber rolls that protect stormwater or drainage inlets. During excavation of the deep foundation for the monopole, groundwater may be encountered. As required by the CBC, a geotechnical investigation would be conducted during site design and would identify the likelihood of encountering groundwater. If necessary, a dewatering plan would be prepared. If it is determined that groundwater is likely to be encountered during excavation and that dewatering would be necessary, a permit from the Los Angeles Regional Water Quality Control Board (RWQCB) would be obtained prior to construction. Removal or discharge of water would be done in accordance with the terms and conditions contained in the permit. Because construction of the proposed Project would be conducted in accordance with applicable NPDES permit requirements, no violation of water quality standards would occur.

Operation of any proposed Project facility would not require use of or discharge of water from the proposed facility. BMPs require that soils be stabilized once construction is completed, and operational activities would not generate runoff that could affect water quality or generate water discharge. Operation of the proposed Project would occur in compliance with applicable regulations and would not use or discharge measurable amounts of runoff; therefore, no violation of water quality standards or waste discharge requirements would occur.

b) **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 preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

Less Than Significant Impact.

Construction. Site construction activities may require use of water for compaction of soils and wetting of exposed soils to control dust. No water would be needed for the operation of the

proposed Project. Water use is not expected to exceed 500 gallons during the entire six-week construction period. In comparison, domestic per capita water use in Los Angeles County was 81 gallons per day in 2015 (USGS 2015). No new groundwater sources are required to support the proposed Project, and the water supplied to the Project would be acquired from municipal or other public water sources

Operational. Groundwater recharge could potentially be affected by creation of new impervious surfaces. The amount of new impervious surfaces at the Project site would not exceed 4,000 square feet. The proposed Project site is located on a hilltop. Hilltops are not groundwater recharge areas. Therefore, construction of the proposed Project would not result in interference with groundwater recharge.

- c) **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?**

No Impact. The proposed telecommunication facility site is on a hilltop and is not adjacent to a stream or river. The nearest surface water features are in Brea Canyon to the west and northeast and Tonner Canyon to the south and southeast. Both are at least one-half mile from the site at their closest points. Construction of proposed Project would not substantially alter existing drainage patterns. Site construction plans would be reviewed by applicable County planning departments prior to issuance of a building permit. During the design and building permit approval process, a hydrological analysis would be completed and/or a standard approved equipment and generator pad would be developed. BMPs such as hay bales, straw rolls, or similar methods would be implemented to direct runoff toward drains and limit sediment leaving the area during construction to limit erosion of exposed soils (e.g., during excavation). Hydrological analysis of surfaces that could generate runoff would be completed during the design and building permit approval process to ensure that local drainages can support any additional runoff that may occur as part of the proposed Project. Therefore, the proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on or off site.

- d) **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?**

No Impact. The proposed telecommunication facility site is on a hilltop and is not adjacent to a stream or river. As discussed under item 3.9 c), construction of proposed Project would not substantially alter existing drainage patterns. Site construction plans would be reviewed by applicable County planning departments prior to issuance of a building permit. During the design and building permit approval process, a hydrological analysis would be completed and/or a standard approved equipment and generator pad would be developed. BMPs such as hay bales, straw rolls, or similar methods would be implemented to direct runoff toward drains and limit sediment leaving the area during construction to limit erosion of exposed soils (e.g., during excavation). Hydrological analysis of surfaces that could generate runoff would be completed during the design and building permit approval process to ensure that local drainages can support any additional runoff that may occur as part of the proposed Project. Therefore, the proposed Project would not 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.

- e) **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?**

Less Than Significant Impact.

Construction. The proposed Project site is undeveloped and does not have an existing storm drain system. As discussed in sections 3.6 a) ii) and 3.6 b), construction plans would be reviewed by applicable County planning departments prior to issuance of a building permit. The building permit process would include review of the drainage issues for the site to assess the amount of runoff that would be generated and whether local drainage systems can support any additional runoff that may be generated by the Project. The proposed Project would not create or contribute runoff water which would exceed the capacity of existing stormwater drainage pattern.

Operational. The proposed Project site would have an up to 4,000-gallon double-walled diesel fuel tank. The fuel tank is a potential water pollutant source. The fuel tank would be installed in accordance with California Fire Code and the APSA. If the diesel fuel tank is greater than 660-gallon capacity, or has a fuel storage capacity greater than 1,320 gallons, an SPCC Plan would be prepared in accordance with 40 CFR Part 112 and the APSA. Fuel tanks would be installed in accordance with prescribed regulations and would not provide a substantial additional source of polluted runoff.

- f) **Otherwise substantially degrade water quality?**

Less Than Significant Impact.

Construction. During construction, BMPs such as sandbags, hay bales, silt fences, and placing berms around construction areas shall be in place to direct runoff to natural drainage features. Silt fences, hay bales, or other types of geofabric specifically designed to reduce siltation will be required to be in place and inspected during construction to substantially reduce and/or eliminate siltation of runoff from the job site during construction. Use of water at the site during construction would be minimal and will be limited to the compaction of soils, concrete wash-out, and potentially for wash-down of site equipment. Water used for soil compaction would result in little or no runoff. Specific concrete and vehicle wash areas will be set up and are required to have plastic or similar material laid out to catch runoff and prevent potential construction contaminants from reaching drainages. Therefore, methods to prevent runoff would be in place during construction of the Project, and water quality would not be substantially degraded.

Operational. Operation of the facility would not generate any wastewater. The only potential for degradation of water supplies would result from runoff at the facility. No hazardous materials would be stored on site other than fuel for the diesel generator. The fuel tank would meet or exceed regulatory requirements for fuel tanks and would be double-hulled to reduce the potential for any leaks. Fuel tanks are specifically designed following regulatory guidance and subsequent design standards to reduce or eliminate the potential for fuel spills. Therefore, operation of the Project would not substantially degrade water quality.

g) 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?

No Impact. The Project does not include the construction of any housing and therefore would not result in placing housing in a flood hazard area.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The entire Project site including the potential power line areas is located within Flood Insurance Rate Map (FIRM) floodzone X –unshaded (FEMA 2008), which is an area of minimal flood hazard at a higher elevation than the 100-year and 500-year flood hazard inundation areas.

i) 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?

No Impact. The Project site is located on a hilltop. The area would not be exposed to flooding.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. The Project site is located on a hilltop. It is 20 miles from the Pacific Ocean and would not be affected by a tsunami, nor is it adjacent to any body of water subject to a seiche that could inundate the site. The area is not susceptible to mudflows, as there are no slopes above the site that could generate a mudflow.

3.10 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

a) Physically divide an established community?

No Impact. The proposed Project is the construction and operation of a communications site. The Project location is not within an established community, and the construction and operation of Site INDWT has no potential to physically divide any community.

- b) 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?**

No Impact. The site of the proposed telecommunications facility is designated as rural land in the Los Angeles County general plan and is zoned by the County as heavy agriculture (A-2). The Los Angeles County Code Title 22 (Section 22.16.030) indicates that radio towers are allowed in Zone A-2 with a conditional use permit. Therefore, the Project would not conflict with the zoning.

Installation of a new power line within or adjacent to an existing road would not conflict with any land use plan, policy, or regulation applicable to either the Los Angeles or Orange county portions of the power line area of the Project site.

- c) Conflict with any applicable habitat conservation plan or natural community conservation plan?**

No Impact. The proposed Project site is not located within the area covered by an applicable habitat conservation plan or natural community conservation plan.

3.11 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant		No Impact
		with Mitigation Incorporated	Less Than Significant Impact	
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No Impact. The Project site is not currently being used for mineral resource extraction. The proposed INDWT facility would be constructed adjacent to existing water tanks, and the power run would be installed within or adjacent to existing roads. Construction and operation of Site INDWT would not result in a change in site conditions that would affect mineral resource availability.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The Project site is not currently being used for mineral resource extraction. The site is not in an area identified by Los Angeles County as a mineral resource zone or oil and gas resource area (LADRP 2014b).

3.12 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

The estimated noise levels from construction of the proposed INDWT site were calculated using the Federal Highway Administration Roadway Construction Noise Model v 1.1 (FHWA, 2008), which was developed from a compilation of empirical noise data that is applicable to a variety of construction equipment including equipment that will be used in the construction of this site. Operational noise was estimated from industry data from diesel generator sets and application of general principles of noise propagation.

a) 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?

Less Than Significant Impact.

Construction. Construction of the proposed Project site would generate noise from construction equipment usage, vehicle trips from construction workers, and supply trucks traveling to and from the proposed Project site. The Project site is located primarily in an unincorporated area of Los Angeles County with a segment of proposed electrical line alignment potentially located within Orange County limits; however, the noise generating activities would occur primarily within the unincorporated area of Los Angeles County. Los Angeles County does not have a specific construction noise level threshold; however, thresholds for mobile and stationary equipment which are used in construction and other activities have been established by the County. The Project site is located in an undeveloped area that is not accessible to the public. The nearest noise receptors are the Firestone Scout Reservation facilities to the east and a residential area to the north. Both are a half mile or more from Site INDWT.

Los Angeles County Code of Ordinances, Title 12 Environmental Protection, Chapter 12.08 Noise Control, Part 4 Specific Noise Restrictions identifies the following noise level thresholds:

- At residential structures maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment (1) daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.: Single Family Residential 75 dBA, multifamily residential 80 dBA, commercial 85 dBA; (2) daily 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays: single family residential 60 dBA, multifamily residential 64 dBA, commercial 70 dBA.
- At residential structures maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment (1) daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.: Single Family Residential 60 dBA, multifamily residential 65 dBA, commercial 70 dBA; (2) daily 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays: single family residential 50 dBA, multifamily residential 55 dBA, commercial 60 dBA.
- At business structures maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment daily, including Sunday and legal holidays, all hours: 85 dBA.

Los Angeles County noise restrictions include operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.

Noise restrictions for Orange County are contained in the Orange County Code of Ordinances, Title 4-Health Sanitation and Animal Regulations, Division 6 Noise. Noise generated in unincorporated Orange County cannot exceed 55dBA from 7:00 a.m. to 10:00 p.m. at the exterior of an adjacent residential property. Section 4-6.7(a) of this ordinance provides an exemption for construction activities provided these activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday.

Estimated noise levels from construction of the proposed INDWT site would be 69 dBA at 300 feet. The nearest noise receptors to Site INDWT are the Firestone Scout Reservation facilities to the east and a residential area to the north. Both are a half mile away or more from the entire site (including the power runs that extend into Orange County), and noise levels would attenuate to ambient levels (50 dBA) over this distance. Therefore, construction noise levels at the proposed Project site would not generate noise in excess of standards established in either county's noise ordinance.

Operational. During operation of the Project site, the dominant noise source would be from the HVAC system associated with the equipment shelter, since this equipment would operate 24 hours a day. In addition, emergency generators would operate one hour per month and during a power outage. Because the air conditioners would operate 24 hours a day, data were calculated as community noise equivalent level (CNEL). Based on this calculation, the CNEL at 10 feet and 20 feet would be 59 dBA and 53 dBA, respectively. Noise from HVAC systems would not violate any thresholds established in the County ordinance. Noise emissions from generator operations would be 58 dBA at 21 feet. Both HVAC and generator noise levels would be below a 60-dBA CNEL threshold and would be considered "normally acceptable" for outdoor residential exposure established by the California Office of Planning and Research *General Plan Guidelines, Noise Element* (CA OPR 2017). In addition, no residential areas are within a half mile of the site.

b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

Less Than Significant Impact.

Construction. During site construction, operation of heavy equipment may generate localized ground-borne vibration and noise that could be perceptible to sensitive receivers within close proximity. The Los Angeles County noise ordinance requires that construction vibration not exceed a perceivable motion velocity of 0.01 peak particle velocity (PPV) over the range of 1 to 100 Hertz at receiver sites. The ordinance prohibits construction activities in excess of this threshold. Referencing vibration source levels for construction equipment published in the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment* (FTA 2006), the distance beyond which potential vibration from construction of the proposed Project site would diminish below the 0.01 PPV vibration threshold is estimated at 164 to 420 feet, depending on soil type. No sensitive receivers are located within this distance of the Project site.

Operational. Site operations would not generate any ground borne vibrations or noise levels.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact.

Construction. Construction activities may temporarily increase noise levels in the vicinity of the Project (see item 3.12 d) below), but increases would be short-term (approximately six weeks).

Operational. Operation of the Project would not include any activities or equipment usage that would result in a permanent increase in noise levels in the vicinity of the proposed Project site.

- d) **A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

Less Than Significant Impact.

Construction. Construction activities at the proposed Project site would produce an increase in noise levels in the vicinity of the site. The increases in noise levels would be temporary and of short duration. FTA *Transit Noise and Vibration Impact Assessment* guidelines for a general noise assessment indicate 90 dBA during daytime hours (7:00 a.m. to 10:00 p.m.) and 80 dBA during nighttime hours (10:00 p.m. to 7:00 a.m.) are thresholds where adverse community reaction could occur for construction activities on a temporary basis (FTA 2006). Although the FTA guidelines do not constitute regulatory requirements, these impact thresholds are referenced in this analysis to determine the potential significance of project construction noise impacts. Estimated noise levels from construction of the proposed INDWT site would be 69 dBA at 300 feet. Because the nearest noise receptors are a residential area a half mile from the site, construction noise levels estimated for the proposed Project would not exceed the adverse community reaction guidelines for a temporary increase in construction noise.

Operational. The emergency generator that would be present at the Project site would be operated approximately one hour per month as part of routine maintenance testing, which could produce a temporary noise increase during the telecommunications facility operations. Noise emissions from generator operations would be 58 dBA at 21 feet on a temporary basis or for a 24-hour period, which is below the 60-dBA CNEL “normally acceptable” threshold for outdoor residential exposure. Because the nearest residential area is a half mile from the site, noise levels would not exceed this threshold.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. The Project site is not located within an airport land use plan or within 2 miles of a public airport. The nearest public airports are Fullerton Airport, which is approximately 9 miles southwest, and Brackett Field in Pomona, which is more than 10 miles north-northeast of the Project site.

- f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. The Project site is not located within the vicinity of a private airstrip.

3.13 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) **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)?**

No Impact. The Project would involve the construction and operation of Site INDWT. Site INDWT would improve and facilitate communications among emergency responders. While its intent is to improve public safety, it would not increase employment or housing; and it would not provide infrastructure that could induce population growth. Construction of the facility would result in a short-term increase in construction employment. The increase in construction employment would not be expected to induce substantial population growth in the area because the work force would be small enough to be accommodated by persons already living in the area and is anticipated to last approximately six weeks. During operation, the facility would be unstaffed and would not result in any new jobs at the site. Therefore, construction and operation of the Project would have no impact on population.

- b) **Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

No Impact. No housing is on or adjacent to the site. The construction and operation of Site INDWT would not displace any existing housing.

- c) **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

No Impact. No housing is on or adjacent to the site. The construction and operation of Site INDWT would not displace any people.

3.14 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

No Impact. The purpose of the Project is to facilitate communications among emergency response agencies including fire, police, and hospitals. The Project would not result in the need for additional fire and police facilities, would not increase school populations and the need for additional school facilities, would not affect development or use of parks, or result in any other impacts to other public facilities. The Project would result in beneficial impacts to response agencies in the event of an emergency by facilitating interoperable communications for coordinated response.

3.15 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No Impact. The Project would not cause a direct population increase (see Section 3.13). The Project site is not in or adjacent to existing recreational areas or facilities, and the site is not accessible to the public for recreation. The telecommunications facility would not be staffed and would only be visited periodically for short periods of time by maintenance staff. The construction and operation of Site INDWT would have no effect on the use of existing neighborhood parks or regional parks or recreational facilities. The Project has no potential to result in substantial physical deterioration of recreational facilities.

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

No Impact. The Project does not include or require construction or expansion of any recreational facilities.

3.16 TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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 nonmotorized 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the project:	Less Than Significant			
	Potentially Significant Impact	with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) **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 nonmotorized 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?**

Less Than Significant Impact.

Construction. During construction, an average of 25 trips to the proposed Project site would be made daily. Construction-related traffic would access the site using existing unpaved roads that would be reached from Tonner Canyon Road. The access to the site lies beyond a gate on Tonner Canyon Road that limits public access beyond that point. No road improvements or new road construction would occur. This minor increase in traffic during construction would not disrupt traffic flow in the Project area and would not be in conflict with an applicable plan, ordinance, or policy associated with the performance of the circulation system (e.g., mass transit, nonmotorized travel, intersections, streets, highways and freeways, pedestrian and bicycle paths).

Operational. Traffic associated with operations and maintenance of each site is projected to be about four trips per month. This minor increase in traffic during operations would not disrupt traffic flow in the Project area and would not be in conflict with an applicable plan, ordinance, or policy associated with the performance of the circulation system (e.g., mass transit, nonmotorized travel, intersections, streets, highways and freeways, pedestrian and bicycle paths).

- b) **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?**

No Impact. Construction and operation-related traffic would access the unpaved roads to get to the site via Tonner Canyon Road. Tonner Canyon Road can be reached by using SR 57 or Brea Canyon Road. Both of these intersections are in in Orange County. Neither intersection is included in Orange County's 2013 Congestion Management Program (CMP) (OCTA 2013). Although the County's CMP does not address these intersections, it does identify the AM and PM peak period levels of service for 2012 for the Tonner Canyon Road segment of the northbound SR 57 as level of service (LOS) C and for southbound SR 57 as LOS D. The effects of construction-related traffic would be nearly indistinguishable from existing levels of traffic because the approximately six-week construction period would typically add fewer than 25 round trips by vehicle per work day, and the increase in traffic would be less than 1 percent of the average daily traffic on this freeway segment. Operation phase traffic would be indistinguishable from existing levels of traffic on this segment because maintenance would typically generate no more than four round trips per month. Therefore, traffic associated with the Project would not conflict with the standards in a congestion management program.

- c) **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?**

No Impact. The proposed Project includes construction of an up to 70-foot monopole with an up to 15-foot-tall lightning rod. The presence of this new structure could potentially be a hazard to air navigation. Information on the proposed monopole was entered into the FAA Notice Criteria Tool which indicated that the proposed monopole is in proximity to a navigation facility and may impact the assurance of navigation signal reception. Therefore, the FAA requests that the proposed structure be filed with them. The Authority would file the notice with the FAA prior to construction of the monopole and would comply with the FAA's aeronautical study and hazard determination, modifying the proposed monopole as required (including reduction of proposed height and/or relocation with the INDWT site boundary) such that there is a No Hazard determination from the FAA. Because the proposed Project would meet FAA requirements, it would not pose safety risk or hazard to air navigation.

- d) **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

No Impact. The proposed Project site would be accessed using existing roads. The Project would not entail any changes to transportation system designs and, therefore, would not introduce any design feature hazards or incompatible uses.

- e) **Result in inadequate emergency access?**

Less Than Significant Impact.

Construction. Construction-related traffic is estimated to not exceed 25 trips per day at the site. Construction activity would affect access only to the site (e.g., the existing water tank site) and would not affect any adjacent roads that could be used for emergency access.

Operational. Vehicle trips associated with operations would be limited to those required for occasional inspections, maintenance, and repair. Up to four vehicle trips per month would occur during operations, equating to a change in the thousandths of a percent of the current average daily traffic. This would not be of sufficient volume to affect the level of service of any roadway. No impairment of access roads would be necessary during operations, and operational impacts on emergency access would be less than significant. In addition, with operation of Site INDWT, communications for first responders would be enhanced and would provide opportunities for better communications associated with access during emergencies.

The proposed facilities would not be sited where they could affect emergency access. During the design process, siting of the facilities would be discussed with the property owner and operator to ensure existing operations and emergency access are not affected and access to existing facilities (i.e., the City of Industry water tanks) would not be blocked, as is required in the site lease/access agreement with the property owner. The LMR system contract requires compliance with applicable regulations and codes, including Life and Safety codes that contain requirements for emergency access. By incorporating code requirements in the placement and design of the site facilities, operation of the Project would have no impact on emergency access.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such facilities?

No Impact. The Project consists of the construction and operation of a telecommunications site. The Project site is not accessible to the public; and no public transit, bicycle, or pedestrian facilities are located on or near the Project site. The Project would have no effect on any policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities nor would it decrease the performance or safety of these facilities.

3.17 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: ...</p>				
a) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

Status of Cultural Resources within the Site INDWT Project Area’s Direct and Indirect APEs. Based on records searches at the South Central Coastal Information Center, intensive field surveys of the entire direct APE, outreach to the Los Angeles and Orange counties Planning Departments, and consultation with 14 Native American tribes, no listed or eligible tribal cultural resources as defined in Public Resources Code section 5020.1(k) are within the direct or indirect APE of the Site INDWT Project area.

The only cultural resources identified within the vicinity of the Project area are three isolated archaeological resources, all of which are situated within the 1-mile indirect APE and approximately 0.42 to 0.54 mile from the Site INDWT Project area, which is well outside ground-disturbing areas. As recorded, these three resources are historic-era in age and none possess characteristics that would be significant to California Native American tribes.

Tribal Consultation. No tribes have requested consultation pursuant to AB 52 for the Site INDWT project area. However, after consultation with the NAHC (Totton, Gayle 2017), tribal consultation was conducted using traditional paths, which included requesting a search of the NAHC’s Sacred Lands File and a list of California Native American tribes with interest in the INDWT geographic area (NAHC 2017). The NAHC was contacted using their required online form format on October 22, 2017, and their letter response was received by email on October 25, 2017. The NAHC stated that the records search of the Sacred Lands File was negative (i.e., no sacred lands were identified at the Project site; however, the letter further indicated that the APE is sensitive for cultural resources (NAHC 2017). Each tribe on the NAHC list was subsequently contacted through their preferred method of communication (e.g., direct mailings, including follow-up telephone calls and emails). In addition, because the FCC is responsible for

Section 106 compliance at all non-federal LMR project sites, the proposed INDWT tower location was entered into the FCC's TCNS, which notifies any federally recognized tribes having an interest in the INDWT geographic area. The federally recognized tribes were consulted using the preferred methods stated in the various TCNS responses, including submittal of INDWT-specific information (maps, photographs, survey results) provided by email, direct mailings, or through upload to their website, and through follow-up telephone conversations, as needed. Using this NAHC-approved combined method for tribal outreach, a total of 14 federally recognized and other California tribes were consulted for the Site INDWT Project area. Tribal consultation with the 14 tribes was completed in January 2018. The 14 tribes consulted are:

- Gabrieleño Band of Mission Indians-Kizh Nation
- Gabrieleño /Tongva San Gabriel Band of Mission Indians
- Gabrielino/Tongva Nation
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino-Tongva Tribe
- Juaneño Band of Mission Indians
- Fernandeano Tataviam Band of Mission Indians
- Eastern Shoshone Tribe
- Skull Valley Band of Goshute Indians
- San Manuel Band of Mission Indians
- Cahuilla Band of Indians
- Los Coyotes Reservation
- Santa Ynez Band of Mission Indians
- Soboba Band of Luiseno Indians

With the exception of four tribes, all of the tribes contacted deferred to tribes more local to the Site INDWT Project area, or expressed no interest in Site INDWT, or provided no response. Follow-on consultation was completed with the four tribes expressing interest in the Site INDWT geographic area: the Gabrieleño Band of Mission Indians-Kizh Nation, the Eastern Shoshone Tribe, the Skull Valley Band of Goshute Indians, and the Soboba Band of Luiseno Indians. Results of the completed follow-on consultation process for the four tribes are as follows:

- The Gabrieleño Band of Mission Indians-Kizh Nation indicated that Site INDWT lies within their ancestral tribal territory and within a sensitive area and that Project activities could cause a substantial adverse change in the significance of tribal cultural resources; however, they did not identify any specific tribal cultural resources within or adjacent to the Project site.

- The Eastern Shoshone Tribe indicated that they do not recommend this site as eligible for listing in the National Register of Historic Places. However, if cultural materials are discovered during construction or the project changes, the Tribe would like to be notified.
- The Skull Valley Band of Goshute Indians indicated that they have no issues with this project site. The Goshute requested notification if cultural materials or human remains are found within the APE or there are changes to the project.
- The Soboba Band of Luiseno Indians deferred to tribes closer to the project area.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a) **listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)**

No Impact. No listed or eligible tribal cultural resources have been identified within the Site INDWT Project area.

- b) **a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Less than Significant Impact

Construction. The Gabrieleño-Kizh Nation considers this geographic area to be sensitive for possible sites, features, places, cultural landscapes, sacred places, or objects with cultural value to their tribe; however, no specific tribal resources have been identified. Because no tribal resources are known within the proposed Project area, impacts are expected to be less than significant. However, the following mitigation measures would be implemented during construction in the unexpected event that prehistoric archaeological resources or human remains are discovered:

CUL MM 3: Unexpected Discovery of Archaeological Materials

In the event that previously unidentified prehistoric or historic-age archaeological resources are uncovered, the following actions shall be taken:

- 1) All ground-disturbing work within 165 feet (50 meters) of the discovery shall be halted. The qualified archaeological monitor will mark the immediate area with highly visible flagging and immediately notify the Project Archaeologist.
- 2) The Project Archaeologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, the resource shall be documented on California State Department of Parks and Recreation cultural resource record forms, and no further effort shall be required.

- 3) If the resource cannot be avoided and may be subject to further impact, the Project Archaeologist shall evaluate the resource and determine whether it is (1) eligible for inclusion in the NRHP and is thus a historic property for the purposes of the NHPA and NEPA; (2) eligible for the CRHR and thus a historical resource for the purposes of CEQA; (3) a “unique” archaeological resource as defined by CEQA; (4) a Tribal resource as defined by AB 52. If the resource is determined not to be significant under any of these four categories, work may commence in the area following collection (as appropriate) and recording, including mapping and photography, of the archaeological materials or features.
- 4) If the resource meets the criteria for any or all of the categories described in CUL MM 3 (3), work shall remain halted, and the Project Archaeologist shall consult with LA-RICS Authority staff regarding methods to ensure that no substantial adverse changes occur. Preservation in place (i.e., avoidance) is the preferred method of ensuring no substantial adverse impacts occur on historic properties/historical resources and shall be required unless other equally effective methods are agreed upon among the Project Archaeologist, the Authority, and any other stakeholders. If the archaeological material appears to represent a site – defined as three or more artifacts and/or features in an intact deposit – an archaeological test program (Phase II) may be necessary. Associated mitigation measures include, but are not limited to, collection of the archaeological materials, recordation (e.g., DPR Primary Record and Site Forms) and analysis of any significant cultural materials in accordance with a Data Recovery Plan, and curation of artifacts at an approved curation facility. A curation agreement for this Project is already in place with the University of California, Los Angeles, Archaeological Collections Facility at the Fowler Museum. At the completion of the appropriate mitigation measures, a professional-level technical report shall be filed with the appropriate California Historical Resources Information System (CHRIS) Information Center (IC).
- 5) Work at the project location may commence upon completion of the appropriate mitigation treatment(s).

CUL MM 4: Unexpected Discovery of Human Remains

Operational. No tribal cultural resources have been identified that could be affected by operation of Site INDWT, and site operations would not include any ground disturbing activities that could affect any archaeological resources that could be considered sensitive to Native American tribes.

3.18 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

Less Than Significant Impact.

Construction. The proposed Project would require drilling a caisson up to 36 feet deep. Site INDWT is located on top of a ridgeline, and groundwater would not be expected to be encountered at this depth on a hilltop site. Construction of the site is not anticipated to result in the generation of any substantive amount of water during construction that would require dewatering. However, a geotechnical investigation would be completed prior to construction. If the geotechnical investigation identifies shallower groundwater that would require dewatering, a dewatering permit would be obtained prior to construction; and any water would be managed in accordance with the permit requirements and thus would meet the wastewater requirements of the Los Angeles RWQCB.

No Impact. The Project would not include construction or expansion of any water or wastewater treatment facilities, and operation of the site would not produce any wastewater that would require treatment.

- c) **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?**

No Impact. The Project would require grading and the addition of up to 4,000 square feet of impermeable surfaces that would increase stormwater runoff. This is a very small area and would not change drainage patterns, and would not require development or expansion of water or wastewater treatment facilities. Building pads would be designed for positive drainage toward existing natural drain catchment areas with the capacity to support the additional runoff associated with new impervious surfaces. Effects on existing stormwater drainage facilities would be less than significant.

- d) **Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

No Impact. Water would be required during construction of the site for activities such as concrete mixing and dust suppression. No water would be required for routine operation of the site. Water usage for construction is expected to be minor. Up to 500 gallons would be expected to be used during the construction period (LA-RICS 2016). Existing water supplies would be used to satisfy the short-term need. The total water requirement for the Project site would be about 0.0003 percent of the daily treated water supply of 165 million gallons per day processed by the Los Angeles County Sanitation District (LACSD). Water supplies from existing entitlements and resources would be sufficient to serve the Project, and impacts on water supplies would be less than significant.

- e) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

No Impact. No water would be required nor provided at the facility; therefore, the Project would not result in generation of wastewater requiring treatment.

- f) **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

Less Than Significant Impact.

Construction. Construction of the Project would not entail demolition of existing structures that would result in waste requiring disposal. Small amounts of debris may be created as a routine part of constructing new facilities. The Project's waste disposal needs would be accommodated by existing landfill facilities within Los Angeles County.

Operational. Operation of the Project would result in minimal solid waste primarily associated with maintenance activities. The Project's waste disposal needs would be accommodated by existing landfill facilities within Los Angeles County.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. Waste may be generated by construction of the Project, as described under Section 3.8 f). Operation of the Project would generate minimal solid waste. Solid waste generated during construction and operation of the site would be handled in a manner that is consistent with federal, State, and local statutes applicable to the type of solid waste generated.

3.19 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

Less Than Significant with Mitigation Incorporated. Potential impacts to biological resources during construction would be reduced to less than significant with implementation of MMs as discussed in Section 3.4. Therefore, the Project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. The Project would have no impact to historic cultural resources. Potential impacts to paleontological resources during construction would be reduced to less than significant with

implementation of MMs as discussed in Section 3.5. Therefore, the Project would not eliminate important examples of the major periods of California history or prehistory.

- b) Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

Less Than Significant Impact. The proposed Project would have no impact on the following resource topics: agriculture and forest resources; land use and planning; mineral resources; population and housing; public services; and recreation. Therefore, the Project would not contribute to cumulative impacts to these resources.

The proposed Project would have less than significant or less than significant with mitigation incorporated to the following resources topics: aesthetics; air quality; biological resources; cultural resources; geology and soils; greenhouse gases; hazards and hazardous materials; hydrology and water quality; noise; traditional cultural resources; transportation/traffic; and utilities and service systems. These resources have been considered for potentially cumulatively considerable impacts. Projects within 2 miles of the Project site were identified and are provided in **Table 3.19-1**.

Table 3.19-1. Projects Within 2 Miles of Site INDWT.

Project	Distance and Direction from Project Site	Location	Description
SR 57 Truck Climbing Auxiliary Lane	1.05 mile west	SR 57 between Lambert Rd and the LA/Orange county line	Truck climbing lane
Tonner Hills Planned Community	1.44 miles south	686 acres on the east side of SR 57 north of Lambert Road and approximately 108 acres on the west side of SR57 at the southwest corner of Tonner Canyon Rd. and the Orange Freeway	795 dwelling units and approximately 570 acres of open space (nearly completed)
Brea Canyon Road Widening Project	1.17 miles west	Brea Canyon Rd between Canyondale Drive and the LA/Orange county line	Widen approximately 1.75 miles of Brea Canyon Road from 2 to 4 lanes
Millennium Development Project	2 miles northeast	County Estates community in Diamond Bar	48 single family lots

The geographic area for the consideration of cumulative impacts on each of these resources is based on the potential geographic extent of impact expected to each resource from the Project. The geographic area and the potential for cumulative impacts from other current or proposed projects identified within each area are discussed below by resource.

Aesthetics: The geographic area considered for cumulative impacts to aesthetics is one-half mile from the Project site based on FCC guidance on the distance for consideration of visual impacts from construction of a communications tower 200 feet tall or less. No other projects were identified within this distance. No cumulatively considerable impacts would occur.

Air Quality: Air emissions from the Project could contribute to cumulative air quality impacts with other projects and ongoing activities in the same air basin as the Project; therefore, the SCAB is the geographic area used for the consideration of cumulative impacts.

Construction. As discussed in Section 3.3 a), air emissions from construction and operation of Site INDWT would not exceed thresholds established by the SCAQMD. These emission thresholds were set by the SCAQMD to ensure that individual projects, when combined with other air pollution-emitting activities within their jurisdiction, do not compromise progress toward attainment of all NAAQS and CAAQS. Although the continued nonattainment status of the SCAB for O₃ (NAAQS/CAAQS), PM_{2.5} (NAAQS/CAAQS), and PM₁₀ (CAAQS) are an indication of significant cumulative impacts of all projects in these basins, air emissions from construction of the INDWT Project would remain below significance thresholds. Air emissions from construction of the Project would not be cumulatively considerable.

Operational. Because air emissions from operation of Site INDWT would not exceed thresholds established by the SCAQMD, operational air emissions from the Project would not be cumulatively considerable.

Biological Resources: The geographic area for the consideration of cumulative impacts to biological resources is two miles from the Project site in order to account for wide-ranging species such as large mammals or raptors.

Construction. Construction of Site INDWT could contribute to cumulative impacts associated with disturbance of protected nesting migratory and raptor bird species during construction. With implementation of mitigation measures as described in Section 3.4, impacts to nesting birds would be avoided during Project construction. Because impacts to nesting birds would be avoided, construction of the Project would not result in cumulatively considerable significant impacts on migratory birds.

Other projects that are or are proposed within 2 miles of the Site INDWT have the potential to impact sensitive species or their habitat or sensitive natural communities. The proposed Project would not result in any loss of habitat that is considered a sensitive community or that supports sensitive species. Potential impacts from construction activities to sensitive species and habitats would be avoided by implementation of mitigation measures as described in Section 3.4. The Project would not result in cumulatively considerable impacts to sensitive species or their habitat or sensitive natural communities.

Operational. Project operations are not expected to present an impact to nesting birds or sensitive species. No ground disturbing activities that could affect natural communities would occur. Operational phase impacts would not be cumulatively considerable.

As discussed in Section 3.4 a), installation of the monopole at Site INDWT could present a slight hazard to flying migratory birds. Therefore the Project could have the potential for cumulative impacts to migratory birds when considered with other existing and proposed towers and similar structures such as transmission line towers. However, monopoles are generally shorter and more visible to birds than lattice type structures and thus are more avoidable to birds and present less of a threat to flying birds. The proposed monopole would not exceed 85 feet in height above ground level including appurtenances which is shorter than many other potential obstacles to flying birds including natural features such as trees. Although the Project could contribute to cumulative impacts to migratory birds, the impact would not be considered cumulatively considerable.

Cultural Resources: The geographic area considered for cumulative impacts to cultural resources is one-half mile from the Project Site based on guidance provided by the FCC for consideration of visual impacts to cultural resources from construction of a 200-foot or less communications tower. No other projects were identified within this distance. No cumulatively considerable impacts would occur.

Geology and Soils: Potential impacts to geology and soils from the Project would be confined to the ground area that would be disturbed by Project construction activities and occupied by the completed facility; therefore, the geographic area considered for cumulative impacts is the Project site and immediately adjacent areas. No other projects were identified within this distance. No cumulatively considerable impacts would occur.

Greenhouse Gases: GHG emissions from the Project could contribute to cumulative impacts with other projects and ongoing activities. Because the site is subject to SCAQMD regulations regarding GHG emissions, the SCAB is the geographic area used for the consideration of cumulative impacts for GHG. The SCAQMD emission thresholds were set to ensure that individual projects, when combined with other air pollution-emitting activities in their jurisdictions, do not result in significant GHG impacts. In developing GHG thresholds, the SCAQMD made various assumptions about growth in population and housing and indicators of economic activity, including transportation activity as indicated by vehicle miles traveled. The proposed Project is not growth-inducing and would not result in an economic activity that would be inconsistent with these assumptions in forecasting district-wide emissions. Although the Project would result in an increase of GHG emissions, as shown in Section 3.7 a), combined GHG emissions from construction and operation of the Project would be less than SCQAMD significance thresholds. Project GHG emissions would not be cumulatively considerable.

Hazards and Hazardous Materials: Potential hazard and hazardous materials impacts from the Project would be confined to the area where Project construction and operational activities would occur; therefore, the geographic area considered for cumulative impacts is the Project site and adjacent areas. No other projects were identified within this distance. No cumulatively considerable impacts would occur.

Hydrology and Water Quality: Potential impacts to hydrology and water quality from the Project would be confined to the ground area that would be disturbed by Project construction activities and occupied by the completed facility, and areas immediately downslope and therefore potentially subject to runoff; therefore, the geographic area considered for cumulative impacts is the Project site and adjacent areas. No other project identified within this distance. No cumulatively considerable impacts would occur.

Noise: The geographic area considered for cumulative impacts from noise is 1,500 feet from the Project site and is based on the maximum distance construction noise from the Project would be expected to dissipate to ambient levels. No other projects were identified within this distance. No cumulatively considerable impacts would occur.

Traditional Cultural Resources: The geographic area considered for cumulative impacts to tribal cultural resources is one-half mile from the Project site for consistency with the distance considered for cultural resources which is based on FCC guidance for consideration of visual impacts to cultural resources from construction of a 200-foot or less communications tower. No other projects were identified within this distance. No cumulatively considerable impacts would occur.

Transportation/Traffic: The geographic area for consideration of cumulative transportation/traffic impacts is the road segments that are expected to be used to access the site, as identified below.

Construction. As discussed in Section 3.18, Project-related traffic would use non-public, unpaved roads to get to the site via Tonner Canyon Road. Tonner Canyon Road can be reached by using SR 57 or Brea Canyon Road, therefore Brea Canyon Road at Tonner Canyon Road and the segments of SR 57 north and south of Tonner Canyon are considered for cumulative impact analysis. Vehicle trips per day on these road segments are 3,000 on Tonner Canyon Road at SR 57, 17,000 and 16,000 on Brea Canyon north and south of Tonner Canyon Road respectively, and 234,000 and 241,000 trips per day on SR 57 north and south of Tonner Canyon Road respectively (OCTA 2017).

Project construction activities could add up to 25 vehicle trips per day. No other project has been identified that would be expected to generate or add traffic on Tonner Canyon Road. Other projects in the area may generate additional traffic on Brea Canyon Road and SR 57. If all 25 Project-related trips per day during construction were to occur on one segment of Brea Canyon Road, they would be an approximate 0.15 percent increase in daily traffic on that road segment. If all 25 Project-related construction traffic were to occur on one segment of SR 57, it would result in an approximate 0.01 percent increase in daily traffic on that segment. However, construction traffic would be unlikely to be confined to any one of these road segments, but rather would be expected to be spread out over multiple road segments. The Project's construction related traffic would be short term and would be too minimal to be cause a cumulatively considerable impact to traffic.

Operational. Operational traffic would consist of up to 4 vehicle trips per month and would be too minimal to be cumulatively considerable.

Utilities and Service Systems: Aspects of utilities and service systems that are relevant for consideration of cumulative impacts from the Project are wastewater and solid waste. The geographic areas for consideration of cumulative utilities and service systems impacts is the service areas for wastewater and solid waste that include the Project site. These are the jurisdictions of the Los Angeles RWQCB for wastewater and Los Angeles County Sanitation District for solid waste.

Construction. Wastewater would only be generated by the Project in the event that any groundwater encountered during Project construction needs to be removed. Any wastewater generated during construction would be managed in accordance with the Los Angeles RWQCB

permit that would be obtained prior to conducting dewatering. Project construction wastewater impacts would not be cumulatively considerable.

Solid waste generation by the Project would be minimal. Project construction does not entail demolition of existing structures and the only waste expected to be created would be minimal amounts generated by construction activities. Most construction-related waste would be recycled or reused resulting in little if any waste that would require disposal in a Los Angeles County landfill. Solid waste disposal from construction of the Project would not be a cumulatively considerable impact to landfills.

Operational. No wastewater would be generated during Project operations. Project operational wastewater impacts would not be cumulatively considerable.

Project operations would not generate solid waste on a routine basis, but minimal amounts requiring disposal in a landfill may occasionally be created as a part of facility maintenance. Disposal of minimal quantities of solid waste from operation of the Project would not be a cumulatively considerable impact to landfills.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact. The Proposed Project would improve communications for emergency response and would have a beneficial impact to public safety. The area near the Project site is not inhabited. People do not work in the area on a regular basis, and the area is not accessible to the public for recreation or other uses. No potential for substantial adverse effects on human beings have been identified.

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4 REFERENCES

- California Air Pollution Control Officers Association (CAPCOA). 2016. California Emissions Estimator Model (CalEEMod). <http://www.aqmd.gov/caleemod/home>.
- California Air Resource Board (CARB). 2017. *Area Designations*. <http://www.arb.ca.gov/desig/adm/adm.htm>.
- . 2014. Area Designations Maps / State and National. Retrieved from <http://www.arb.ca.gov/desig/adm/adm.htm>.
- . 2014. California Emissions Factor Model (EMFAC). <https://www.arb.ca.gov/emfac/2014/> (Access 12/2017).
- . 2013a. *State and National Air Quality Standards*. <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.
- California Office of Planning and Research (CA OPR). 2017. *General Plan Guidelines, Noise Element*. <http://www.opr.ca.gov/planning/general-plan/guidelines.html>
- California Department of Conservation. 2018a. Alquist-Priolo Earthquake faults and Seismic Hazards. <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>.
- . 2018b. Geologic Hazards. http://www.conservation.ca.gov/cgs/geologic_hazards/landslides.
- California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP). 2014. <ftp://ftp.consrv.ca.gov/pub/dlrp/fmmp/2014/>
- California Department of Transportation (Caltrans). 2014. California Scenic Highway Mapping System, Officially Designated State Scenic Highways and Historic Parkways. http://www.dot.ca.gov/hq/LandArch/scenic_highways/.
- County of Los Angeles. 2015. Los Angeles County General Plan. October 6. http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan.pdf.
- Federal Communications Commission (FCC) 2017 TOWAIR Determination. retrieved from <http://wireless2.fcc.gov/UlsApp/AsrSearch/towairSearch.jsp>.
- Federal Emergency Management Agency (FEMA). 2008. Flood Insurance Rate Map (FIRM) No: 06037C1880F. 09/26/2008. Retrieved from <http://gisdata.scag.ca.gov/Pages/GIS-Library.aspx>.
- Federal Highway Administration (FHWA). 2008. Roadway Construction Noise Model (RCNM). https://www.fhwa.dot.gov/Environment/noise/construction_noise/rcnm/.
- Federal Transit Administration (FTA). 2006. *Transit Noise and Vibration Impact Assessment*. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf.

- Los Angeles County Department of Public Works (LACDPW), Water Resources Division. 2006. *Hydrology Manual*. (January)
https://dpw.lacounty.gov/wrd/publication/engineering/2006_Hydrology_Manual/2006%20Hydrology%20Manual-Divided.pdf.
- Los Angeles County Department of Regional Planning (LADRP). 2014a. General Plan, South Diamond Bar Land Use Policy.
- . 2015. Unincorporated Los Angeles County Community Climate Action Plan 2020. Final.
- Los Angeles Regional Interoperable Communications System Joint Powers Authority (LA-RICS). 2016. Final Environmental Impact Report for the Los Angeles Regional Interoperable Communications System (LA-RICS) Land Mobile Radio (LMR) System.
- . 2014b. Los Angeles County General Plan 2035. Retrieved from planning.lacounty.gov/generalplan/generalplan.
- Los Angeles Times Local. 2017. South Diamond Bar.
<http://maps.latimes.com/neighborhoods/neighborhood/south-diamond-bar/>
- Native American Heritage Commission (NAHC) 2017. Letter from the Native American Heritage Commission (Gayle Totton, MA, PhD) to Dr. Paige Peyton, Jacobs Engineering, regarding the Proposed Los Angeles Regional Interoperable Communication System (LA-RICS) Land Mobile Radio (LMR) Project, City of Brea; Yorba Linda USGS Quadrangle, Los Angeles and Orange Counties, California. October 25.
- Orange County Public Works. 2017. Orange County mapping data. Retrieved from [www.ocgis.com/ocpw/Land Records/](http://www.ocgis.com/ocpw/Land_Records/)
- Orange County Transportation Authority (OCTA). 2013. Congestion Management Program (CMP). November. <http://www.octa.net/pdf/Final%202013%20CMP.pdf>.
- . 2017. 2017 Traffic Flow Map. August. <http://www.octa.net/pdf/2017-ADT.pdf>.
- Peyton, Paige M., PhD, RPA, Principal Investigator 2018. Los Angeles Regional Interoperable Communications System (LA-RICS) Joint Powers Authority (Authority) Land Mobile Radio (LMR) Project Industry Water Tank (INDWT) Project Site: LMR Project Description and Phase 1 Archaeological Survey Report. January 2. Surveys conducted by Daniel Woodward, MA, RPA, on December 14, 2016, and October 19, 2017.
- South Coast Air Quality Management District (SCAQMD). 2016. *2016 Final Air Quality Management Plan*. <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp>.
- . 2015. *Supplement to 24-hour PM_{2.5} State Implementation Plan for South Coast Air Basin* <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-feb6-022.pdf?sfvrsn=2>.

- . 2008a. *Significance Threshold Methodology*. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-1st-methodology-document.pdf?sfvrsn=2>.
- . 2008b. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf)
- . 1993. *CEQA Handbook*.
- South Central Coastal Information Center (SCCIC) 2017. Resource Detail: P-19-100794; P-19-100795; P-19-101223. March 21.
- State of California, Department of Conservation. 2016. Land Conservation Act maps (source of Williamson Act data). Retrieved from <http://www.conservation.ca.gov/dlrp/lca>
- Totton, Gayle 2017. Email exchange between Gayle Totton, M.A., Ph.D, Native American Heritage Commission and Paige Peyton, Ph.D, RPA, Jacobs Engineering, regarding the Tribal Consultation Plan for LA-RICS CEQA Project INDWT. November 7.
- United States Environmental Protection Agency (USEPA). 2017. NEPAassist Enviromapper. <https://nepassisttool.epa.gov/nepassist/nepamap.aspx>.
- . 2014a. General Conformity *De Minimis* Levels.
- . 2014b. AirData. http://www.epa.gov/airdata/ad_rep_mon.html (Accessed 07/2014).
- . 2014c. *Green Book*. <http://www.epa.gov/oar/oaqps/greenbk/> (Accessed 07/2014).
- United State Geological Survey (USGS). 2015. Estimated Use of Water in the United States County-Level Data for 2015. <https://www.sciencebase.gov/catalog/item/59a96d18e4b07e1a023db323>
- Western Regional Climate Center (WRCC). 2014. *Climate Summary*. <http://www.wrcc.dri.edu/climatedata/climsum/>.

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APPENDIX A

PROPOSED PROJECT SITE INDWT PHOTOS

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Photograph 1. View looking north across the proposed telecommunications facility site.



Photograph 2. View looking southeast across the proposed telecommunications facility site. The tire holds a salt lick used by livestock.



Photograph 3. View looking east across the proposed telecommunications facility site, towards the adjacent City of Industry water tanks. The tire holds a salt lick used by livestock.



Photograph 4. View looking southwest across the proposed telecommunications facility site.



Photograph 5. View looking west along access road across the proposed telecommunications facility site showing site conditions from cattle grazing.



Photograph 6. View looking east toward proposed telecommunications site along the potential southwestern power run alignment. Power line would be installed adjacent to or within the road.



Photograph 7. View looking northeast along the potential southwestern power run alignment. Note the adjacent transmission line.



Photograph 8. Radio antenna complex at the end of the southwestern power run alignment. View looking south.



Photograph 9. View looking southeast along the potential southeastern power run alignment. Power line would be installed adjacent to or within the road. Tonner Canyon Road is in the background.



Photograph 10. View looking southwest along Tonner Canyon Road at the end of the potential southeastern power run alignment. Note power distribution line.

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APPENDIX B

**BIOLOGICAL FIELD NOTES FOR RECONNAISSANCE SURVEY
OF SITE INDWT**

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APPENDIX B

BIOLOGICAL FIELD NOTES FOR RECONNAISSANCE SURVEY OF SITE INDWT

A biological field survey was conducted by Jacobs Biologist David Charlton at Industry Water Tank (Site INDWT) on September 14, 2017, for the alternate power run down to the bottom of Tonner Canyon. The survey area contains the same disturbed oak-walnut woodland with non-native grassland understory as at the proposed tower site and western power run surveys. The area where the poles may be placed on either side of the road has been previously bladed. An underground waterline is installed on the north side. The proposed power access road near Tonner Canyon is extremely steep and was barely walkable. Since the area is seldom used and it was early in the morning, large flocks of birds were observed on the dead snags. Two red-tailed hawks were heard in the canyon, and a large stick nest was observed in a large Aleppo pine near where the access road ends in the bottom of Tonner Canyon.



Bottom of Tonner Canyon look at buildings for the Boy Scout Camp looking northeast



Bottom of Tonner Canyon adjacent to the access road looking west



Looking north at the beginning of the power access road in Tonner Canyon



On the power access road approaching Tonner Canyon looking south



Near the base of the power access road looking south



Looking at the beginning of the steep hill up the power access road

Biological Report on City of Industry Water Tanks

Crew: Steve Sanchez, Armando Fritz, Ralph Santillon, Dave Charlton, Dan Woodward, and two sheriff's representatives.

Site: IND Date: 12/14/16 Time: 10:30-1:00 Weather: Overcast but clearing 70 degrees

Conditions of site: Recent rains resulted in spring annuals germinating. Two watering troughs are on the east side of the water tanks. This explains the heavy presence of cattle grazing within the bare areas within the proposed polygon. The annuals are all non-native, and the ground surface is highly disturbed by cattle. There is evidence that the cows spend a lot of time under the shade of the nearby trees during hot weather. Vegetation on the north side is coast live oak-black walnut. The south-facing slopes are coastal sage scrub dominated by laurel sumac and coastal sagebrush. Plants are sparse and not good nesting habitat for gnatcatchers. Potential rare plant: Intermediate mariposa lily. Critical habitat for gnatcatcher is approximately 3.5 miles south. Wildlife: red ants, pocket gopher, and raven. Animals known to inhabit the area include coyote, bobcats, and raccoons.

Scientific Name	Common Name	Abundance
<i>Adenostoma fasciculatum</i>	chamise	R
<i>Ambrosia acanthicarpa</i>	sand bur	UN
<i>Artemisia californica</i>	California sagebrush	UN
<i>Avena barbata</i> & <i>A. fatua</i>	wild oats	Seedlings -- can't ID yet
<i>Baccharis salicifolia</i>	seep willow	R
<i>Bromus madritensis</i> var <i>rubens</i>	red brome	FC
<i>Chenopodium murale</i>	nettle-leaf goosefoot	C
<i>Croton californicus</i>	croton	UN
<i>Encelia californica</i>	coast sunflower	FC
<i>Erodium cicutarium</i>	red-stem filaree	C
<i>Hirshfeldia incana</i>	biennial mustard	R
<i>Isocoma menziesii</i>	coast goldenbush	UN
<i>Malacothamnus</i> cf <i>fasciculatus</i>	bush mallow	UN
<i>Malosma laurina</i>	laurel sumac	C
<i>Malva</i> cf <i>neglecta</i>	cheeseweed	C
<i>Marrubium vulgare</i>	horehound	FC
<i>Mirabilis laevis</i> var <i>crassifolia</i>	wishbone plant	R
<i>Rhus integrifolia</i>	lemonade berry	UN
<i>Salsola tragus</i>	tumbleweed	FC
<i>Salvia mellifera</i>	black sage	FC
<i>Silybum marianum</i>	milk thistle	UN
<i>Urtica urens</i>	annual nettle	UN

R = rare, UN = uncommon FC = Fairly common C = Common



IND Overflow from water tanks created this spring



IND One of two water troughs that result in site containing high cattle activity



IND View of water tanks from the southeast



IND View looking south toward the lattice towers on the far ridge



IND View of proposed polygon bare area looking north



IND View from site looking west



IND View from center of polygon looking north at water tanks and coast live oak and black walnut trees



IND Looking west at State Route 57



IND West of polygon looking west



IND Looking north at north-facing slope with dead trees and others in poor health due to drought and fires.



IND The soil surface is highly disturbed and only contains weedy non-natives. Soil contains a layer of pulverized manure.

The vicinity of the site contains native vegetation and includes the Firestone Boy Scout Camp and Camp Flores Transformation Center (health camp). The site is located in the far western portion of Chino Hills State Park in an area without public trails. Typical wildlife observed by the escort includes mountain lions, bobcat, coyote, striped skunk, opossum, and ground squirrel. Sensitive bird species include least Bell's vireo, California gnatcatcher, Cooper's hawk, sharp-shinned hawk, golden eagle, northern harrier, white-tailed kite, California horned lark, rufous crowned sparrow, grasshopper sparrow, yellow-breasted chat, yellow warbler, long-eared owl, Costa's hummingbird, and rufous hummingbird. Other sensitive species include coast horned lizard, San Diego woodrat, coast whiptail, red diamondback, and coast patch-nosed snake. The vegetation within the study area is non-native grassland and woodland dominated by coast live oak and California black walnut. Very little coastal sage scrub is available for gnatcatcher nesting habitat, although critical habitat and foraging habitat does occur nearby. The proposed polygon vegetation is highly disturbed by cattle that utilize the area under the shade trees because the water troughs are just north of the water tanks. The creek that runs parallel to State Route (SR-) 58 contains least Bell's vireo habitat and a small population of southwestern pond turtle. The California walnut woodland is a county protected community, with the vegetation in Tonner Canyon being one of the largest contiguous populations in the Los Angeles region.

Sensitive plant species have been observed on the south-facing slopes between the site and SR-58. Sensitive species have also been observed in the eastern portion of Chino Hills State Park. The most likely sensitive plant species to be found within the study area is the intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), a CNPS 1B.2 species. This variety is a natural hybrid between *Calochortus weedii* and *Calochortus plummerae*. Phenotypic variety includes the full range of variation from nearly pure *C. weedii* to nearly pure *C. plummerae*. Keys do not capture the full range of variation resulting in some individuals not fitting either species. These individuals have been referred to as



“hybrids” in the past. Such individuals should not be considered a separate species but should be treated as part of the range of characters found in a hybrid and lumped in with the variety *intermedius*. This variety has the golden color of *C. weedii* and the purple color of *C. plummerae*. Either *C. weedii*, *C. plummerae*, or *C. intermedia* and the “hybrid” could occur in the general vicinity of the site.

Industry Water Tank – Plants Observed

Scientific Name	Common Name	Abundance
<i>Acmispon glaber+</i>	deerweed	UN
<i>Adenostoma fasciculatum</i>	chamise	R
<i>Ambrosia acanthicarpa</i>	sand bur	UN
<i>Ambrosia psilostachya+</i>	sand bur	LC
<i>Artemisia californica+</i>	California sagebrush	UN
<i>Avena barbata</i> & <i>A. fatua</i> *	wild oats	C
<i>Baccharis salicifolia</i>	seep willow	R
<i>Bloomeria crocea</i>	goldenstars	UN
<i>Bromus diandrus</i> *	rip gut brome	FC
<i>Bromus madritensis</i> var. <i>rubens</i> *	red brome	FC
<i>Centaurea melitensis+</i> *	star thistle	FC
<i>Chenopodium murale</i> *	nettle-leaf goosefoot	C
<i>Chrysopsis villosa</i>	golden aster	R
<i>Convolvulus arvensis</i> *	common bindweed	R
<i>Croton californica+</i>	croton	UN
<i>Croton setiger+</i>	doveweed	FC
<i>Cucurbita foetidissima+</i>	coyote melon	R
<i>Cynadon dactylon+</i> *	Bermuda grass	UN
<i>Datura wrightii+</i>	jimsonweed	UN
<i>Deinandra paniculata</i>	San Diego tarweed	UN
<i>Encelia californica</i>	coast sunflower	FC
<i>Erigeron canadensis</i> *	Canadian horseweed	R
<i>Eriogonum elongatum</i>	long-stemmed buckwheat	R
<i>Eriogonum fasciculatum</i>	California bush buckwheat	UN
<i>Erodium bothrys</i> *	white-stem filaree	LC
<i>Erodium cicutarium</i> *	red-stem filaree	C
<i>Euphorbia albomarginata</i>	rattlesnake spurge	UN
<i>Foeniculum vulgare+</i>	fennel	R
<i>Gutierrezia californica</i>	California matchweed	R
<i>Heteromeles arbutifolia</i>	toyon	UN
<i>Heterotheca grandiflora</i>	telegraph weed	UN
<i>Hirshfeldia incana+</i> *	biennial mustard	R
<i>Hordeum</i> sp, +	foxtail barley	UN
<i>Isocoma menziesii+</i>	coast goldenbush	UN
<i>Juglans nigra+</i>	California black walnut	FC
<i>Lamarckia aurea+</i> *	Lamarckia grass	UN
<i>Lonicera subspicata</i>	chaparral honeysuckle	R
<i>Lupinus hirsutissimus</i>	hairy lupine	R
<i>Malacothamnus</i> cf <i>fasciculatus</i>	bush mallow	UN
<i>Marah macrocarpa</i>	manroot	R

Industry Water Tank – Plants Observed

Scientific Name	Common Name	Abundance
<i>Malosma laurina</i> +	laurel sumac	C
<i>Malva cf neglecta</i> +*	cheeseweed	C
<i>Marrubium vulgare</i> +*	horehound	FC
<i>Mirabilis laevis</i> var. <i>crassifolia</i>	wishbone plant	R
<i>Nicotiana glauca</i> +*	Indian tobacco	UN
<i>Polygonum argyroleon</i> *	prostrate knotweed	UN
<i>Pseudognaphalium californicum</i>	California pearly everlasting	R
<i>Quercus agrifolia</i>	coast live oak	FC
<i>Rhus integrifolia</i>	lemonade berry	UN
<i>Solanum douglasii</i>	Douglas nightshade	R
<i>Salsola tragus</i> +*	tumbleweed	FC
<i>Salvia apiana</i>	white sage	R
<i>Salvia mellifera</i> +	black sage	FC
<i>Silybum marianum</i> +*	milk thistle	UN
<i>Stephanomeria exigua</i> +	small wirelettuce	R
<i>Toxicodendron diversiloba</i>	poison oak	UN
<i>Tribulus terrestris</i> *	goathead	R
<i>Urtica urens</i>	annual nettle	UN
R = rare UN = uncommon FC = Fairly common C = Common * non-native + found at power line walk to Tonner Canyon 59 species, 20 introduced 30% Survey Date: 12/14/16, 9/5/17, and 9/14/17		

Wildlife Observed: Three deer, red-tailed hawk, side-blotch lizard, cows, crows, cabbage white butterflies, scrub jay, bobcat tracks, quail, mourning doves, acorn woodpeckers

APPENDIX C

GREENHOUSE GAS EMISSION CALCULATIONS

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**TOTAL ANNUAL GREENHOUSE GAS
EMISSIONS FOR CONSTRUCTION**

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

LA RICS LMR Max Construction SCAQMD
South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	0.00	1000sqft	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

Project Characteristics -

Land Use -

Construction Phase - LA-RICS INDTW CONSTRUCTION

Off-road Equipment - LA-RICS LMR Maximum Construction Scenario - Demolition Phase

Off-road Equipment - LA-RICS Maximum Construction Scenario - Excavation

Off-road Equipment - LA-RICS Maximum Construction Scenario - Pad Construction & Equipment Installation

Off-road Equipment - LA-RICS INDTW CONSTRUCTION

Trips and VMT - VMT based on 1.25 workers per piece of non-construction/architectural coating equipment

Demolition - Pad sq. footage for largest shelter 11'6" x 36'

Vehicle Emission Factors - EMFAC2014 annual emissions factors

Vehicle Emission Factors - EMFAC2014 summer emissions factors

Vehicle Emission Factors - EMFAC2014 winter emissions factors

Construction Off-road Equipment Mitigation - Tier 4 Final mitigation on selected equipment

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tblAreaCoating	Area_EF_Nonresidential_Interior	100	250
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tblAreaCoating	Area_EF_Residential_Exterior	50	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

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tblConstructionPhase	PhaseEndDate	11/18/2018	11/30/2018
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tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.8740e-003	0.00
tblFleetMix	MCY	4.6730e-003	0.00
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tblFleetMix	MH	9.8900e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9900e-003	0.00
tblFleetMix	SBUS	7.0200e-004	0.00
tblFleetMix	UBUS	2.0150e-003	0.00
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tblOffRoadEquipment	HorsePower	63.00	60.00
tblOffRoadEquipment	HorsePower	9.00	450.00
tblOffRoadEquipment	HorsePower	158.00	23.00

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblOffRoadEquipment	HorsePower	158.00	153.00
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tblOffRoadEquipment	HorsePower	16.00	450.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Pad Construction & Equip Install
tblOffRoadEquipment	PhaseName		Pad Construction & Equip Install
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Pad Construction & Equip Install
tblOffRoadEquipment	PhaseName		Pad Construction & Equip Install
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	UsageHours	4.00	0.60

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	7.90	6.90
tblTripsAndVMT	VendorTripLength	7.90	6.90
tblTripsAndVMT	VendorTripLength	7.90	6.90
tblTripsAndVMT	WorkerTripLength	19.80	14.70
tblTripsAndVMT	WorkerTripLength	19.80	14.70
tblTripsAndVMT	WorkerTripLength	19.80	14.70
tblTripsAndVMT	WorkerTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	13.00	1.00
tblTripsAndVMT	WorkerTripNumber	8.00	2.00
tblVehicleEF	HHD	0.80	0.02
tblVehicleEF	HHD	0.09	0.01
tblVehicleEF	HHD	0.12	0.00
tblVehicleEF	HHD	3.00	2.87
tblVehicleEF	HHD	1.07	1.95
tblVehicleEF	HHD	3.38	64.37
tblVehicleEF	HHD	4,645.65	571.32
tblVehicleEF	HHD	1,675.01	1,664.78
tblVehicleEF	HHD	10.23	62.55
tblVehicleEF	HHD	23.95	5.34
tblVehicleEF	HHD	4.77	7.00
tblVehicleEF	HHD	19.70	3.90
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.02	0.12
tblVehicleEF	HHD	1.2600e-004	3.9220e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8000e-003	8.6730e-003
tblVehicleEF	HHD	0.02	0.11
tblVehicleEF	HHD	1.1700e-004	3.1510e-003
tblVehicleEF	HHD	1.3500e-004	2.6170e-003
tblVehicleEF	HHD	6.2610e-003	0.15
tblVehicleEF	HHD	0.75	0.53
tblVehicleEF	HHD	9.5000e-005	1.6620e-003
tblVehicleEF	HHD	0.15	0.28
tblVehicleEF	HHD	5.3200e-004	0.57
tblVehicleEF	HHD	0.11	2.39
tblVehicleEF	HHD	0.04	5.5900e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.5900e-004	1.7260e-003
tblVehicleEF	HHD	1.3500e-004	2.6170e-003
tblVehicleEF	HHD	6.2610e-003	0.15
tblVehicleEF	HHD	0.88	0.60
tblVehicleEF	HHD	9.5000e-005	1.6620e-003
tblVehicleEF	HHD	0.26	0.32
tblVehicleEF	HHD	5.3200e-004	0.57
tblVehicleEF	HHD	0.12	2.56
tblVehicleEF	HHD	0.75	0.02
tblVehicleEF	HHD	0.09	0.01
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	2.19	2.09
tblVehicleEF	HHD	1.08	1.96

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	HHD	3.21	53.89
tblVehicleEF	HHD	4,918.20	605.27
tblVehicleEF	HHD	1,675.01	1,664.78
tblVehicleEF	HHD	10.23	62.55
tblVehicleEF	HHD	24.71	5.51
tblVehicleEF	HHD	4.51	6.62
tblVehicleEF	HHD	19.69	3.74
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.02	0.12
tblVehicleEF	HHD	1.2600e-004	3.9220e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8000e-003	8.6730e-003
tblVehicleEF	HHD	0.02	0.11
tblVehicleEF	HHD	1.1700e-004	3.1510e-003
tblVehicleEF	HHD	2.1600e-004	4.3010e-003
tblVehicleEF	HHD	6.4850e-003	0.15
tblVehicleEF	HHD	0.71	0.50
tblVehicleEF	HHD	1.5100e-004	2.8410e-003
tblVehicleEF	HHD	0.15	0.28
tblVehicleEF	HHD	5.2600e-004	0.57
tblVehicleEF	HHD	0.10	2.04
tblVehicleEF	HHD	0.05	5.9230e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.5600e-004	1.5510e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	HHD	2.1600e-004	4.3010e-003
tblVehicleEF	HHD	6.4850e-003	0.15
tblVehicleEF	HHD	0.83	0.57
tblVehicleEF	HHD	1.5100e-004	2.8410e-003
tblVehicleEF	HHD	0.26	0.32
tblVehicleEF	HHD	5.2600e-004	0.57
tblVehicleEF	HHD	0.11	2.19
tblVehicleEF	HHD	0.86	0.03
tblVehicleEF	HHD	0.09	0.01
tblVehicleEF	HHD	0.12	0.00
tblVehicleEF	HHD	4.12	3.96
tblVehicleEF	HHD	1.07	1.95
tblVehicleEF	HHD	3.40	65.09
tblVehicleEF	HHD	4,269.27	524.45
tblVehicleEF	HHD	1,675.01	1,664.78
tblVehicleEF	HHD	10.23	62.55
tblVehicleEF	HHD	22.90	5.10
tblVehicleEF	HHD	4.69	6.89
tblVehicleEF	HHD	19.70	3.92
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.02	0.12
tblVehicleEF	HHD	1.2600e-004	3.9220e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8000e-003	8.6730e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	HHD	0.02	0.11
tblVehicleEF	HHD	1.1700e-004	3.1510e-003
tblVehicleEF	HHD	1.3700e-004	2.9070e-003
tblVehicleEF	HHD	7.1500e-003	0.19
tblVehicleEF	HHD	0.81	0.57
tblVehicleEF	HHD	9.5000e-005	1.7380e-003
tblVehicleEF	HHD	0.15	0.28
tblVehicleEF	HHD	5.7100e-004	0.61
tblVehicleEF	HHD	0.11	2.42
tblVehicleEF	HHD	0.04	5.1320e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.5900e-004	1.7380e-003
tblVehicleEF	HHD	1.3700e-004	2.9070e-003
tblVehicleEF	HHD	7.1500e-003	0.19
tblVehicleEF	HHD	0.95	0.65
tblVehicleEF	HHD	9.5000e-005	1.7380e-003
tblVehicleEF	HHD	0.26	0.32
tblVehicleEF	HHD	5.7100e-004	0.61
tblVehicleEF	HHD	0.12	2.59
tblVehicleEF	LDA	6.4980e-003	0.01
tblVehicleEF	LDA	7.8410e-003	0.01
tblVehicleEF	LDA	0.77	1.23
tblVehicleEF	LDA	1.52	2.35
tblVehicleEF	LDA	297.20	308.21
tblVehicleEF	LDA	63.04	64.83
tblVehicleEF	LDA	0.07	0.11
tblVehicleEF	LDA	0.10	0.16

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LDA	2.1440e-003	2.0560e-003
tblVehicleEF	LDA	2.3480e-003	2.8070e-003
tblVehicleEF	LDA	1.9770e-003	1.8810e-003
tblVehicleEF	LDA	2.1590e-003	2.5670e-003
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.12	0.15
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	0.04	0.33
tblVehicleEF	LDA	0.11	0.19
tblVehicleEF	LDA	2.9780e-003	3.6090e-003
tblVehicleEF	LDA	6.5700e-004	7.7600e-004
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.12	0.15
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.02	0.05
tblVehicleEF	LDA	0.04	0.33
tblVehicleEF	LDA	0.12	0.20
tblVehicleEF	LDA	6.9350e-003	0.01
tblVehicleEF	LDA	6.9360e-003	0.01
tblVehicleEF	LDA	0.85	1.35
tblVehicleEF	LDA	1.30	1.87
tblVehicleEF	LDA	312.62	324.08
tblVehicleEF	LDA	63.04	64.83
tblVehicleEF	LDA	0.06	0.10
tblVehicleEF	LDA	0.09	0.15
tblVehicleEF	LDA	2.1440e-003	2.0560e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LDA	2.3480e-003	2.8070e-003
tblVehicleEF	LDA	1.9770e-003	1.8810e-003
tblVehicleEF	LDA	2.1590e-003	2.5670e-003
tblVehicleEF	LDA	0.08	0.11
tblVehicleEF	LDA	0.13	0.16
tblVehicleEF	LDA	0.07	0.08
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	0.04	0.31
tblVehicleEF	LDA	0.09	0.16
tblVehicleEF	LDA	3.1330e-003	3.7970e-003
tblVehicleEF	LDA	6.5300e-004	7.6700e-004
tblVehicleEF	LDA	0.08	0.11
tblVehicleEF	LDA	0.13	0.16
tblVehicleEF	LDA	0.07	0.08
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.04	0.31
tblVehicleEF	LDA	0.10	0.17
tblVehicleEF	LDA	6.3690e-003	0.01
tblVehicleEF	LDA	8.0010e-003	0.01
tblVehicleEF	LDA	0.74	1.19
tblVehicleEF	LDA	1.56	2.43
tblVehicleEF	LDA	292.41	303.27
tblVehicleEF	LDA	63.04	64.83
tblVehicleEF	LDA	0.06	0.11
tblVehicleEF	LDA	0.10	0.16
tblVehicleEF	LDA	2.1440e-003	2.0560e-003
tblVehicleEF	LDA	2.3480e-003	2.8070e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LDA	1.9770e-003	1.8810e-003
tblVehicleEF	LDA	2.1590e-003	2.5670e-003
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.14	0.17
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.05	0.37
tblVehicleEF	LDA	0.11	0.19
tblVehicleEF	LDA	2.9300e-003	3.5500e-003
tblVehicleEF	LDA	6.5700e-004	7.7700e-004
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.14	0.17
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.02	0.05
tblVehicleEF	LDA	0.05	0.37
tblVehicleEF	LDA	0.12	0.21
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	2.00	3.18
tblVehicleEF	LDT1	3.80	5.68
tblVehicleEF	LDT1	357.93	363.50
tblVehicleEF	LDT1	74.90	75.69
tblVehicleEF	LDT1	0.19	0.31
tblVehicleEF	LDT1	0.22	0.33
tblVehicleEF	LDT1	3.6930e-003	4.9100e-003
tblVehicleEF	LDT1	3.9290e-003	5.3790e-003
tblVehicleEF	LDT1	3.4020e-003	4.5060e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LDT1	3.6140e-003	4.9390e-003
tblVehicleEF	LDT1	0.16	0.19
tblVehicleEF	LDT1	0.33	0.33
tblVehicleEF	LDT1	0.13	0.14
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.20	1.16
tblVehicleEF	LDT1	0.27	0.44
tblVehicleEF	LDT1	3.6060e-003	4.1700e-003
tblVehicleEF	LDT1	8.1600e-004	9.4200e-004
tblVehicleEF	LDT1	0.16	0.19
tblVehicleEF	LDT1	0.33	0.33
tblVehicleEF	LDT1	0.13	0.14
tblVehicleEF	LDT1	0.07	0.13
tblVehicleEF	LDT1	0.20	1.16
tblVehicleEF	LDT1	0.30	0.47
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	2.18	3.44
tblVehicleEF	LDT1	3.23	4.50
tblVehicleEF	LDT1	375.14	381.33
tblVehicleEF	LDT1	74.90	75.69
tblVehicleEF	LDT1	0.17	0.27
tblVehicleEF	LDT1	0.21	0.30
tblVehicleEF	LDT1	3.6930e-003	4.9100e-003
tblVehicleEF	LDT1	3.9290e-003	5.3790e-003
tblVehicleEF	LDT1	3.4020e-003	4.5060e-003
tblVehicleEF	LDT1	3.6140e-003	4.9390e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LDT1	0.26	0.31
tblVehicleEF	LDT1	0.35	0.36
tblVehicleEF	LDT1	0.19	0.22
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.19	1.09
tblVehicleEF	LDT1	0.24	0.38
tblVehicleEF	LDT1	3.7810e-003	4.3790e-003
tblVehicleEF	LDT1	8.0600e-004	9.2200e-004
tblVehicleEF	LDT1	0.26	0.31
tblVehicleEF	LDT1	0.35	0.36
tblVehicleEF	LDT1	0.19	0.22
tblVehicleEF	LDT1	0.07	0.13
tblVehicleEF	LDT1	0.19	1.09
tblVehicleEF	LDT1	0.26	0.40
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	1.94	3.09
tblVehicleEF	LDT1	3.90	5.86
tblVehicleEF	LDT1	352.49	358.15
tblVehicleEF	LDT1	74.90	75.69
tblVehicleEF	LDT1	0.19	0.30
tblVehicleEF	LDT1	0.23	0.33
tblVehicleEF	LDT1	3.6930e-003	4.9100e-003
tblVehicleEF	LDT1	3.9290e-003	5.3790e-003
tblVehicleEF	LDT1	3.4020e-003	4.5060e-003
tblVehicleEF	LDT1	3.6140e-003	4.9390e-003
tblVehicleEF	LDT1	0.16	0.20

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LDT1	0.38	0.38
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.24	1.38
tblVehicleEF	LDT1	0.28	0.45
tblVehicleEF	LDT1	3.5510e-003	4.1070e-003
tblVehicleEF	LDT1	8.1800e-004	9.4500e-004
tblVehicleEF	LDT1	0.16	0.20
tblVehicleEF	LDT1	0.38	0.38
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.07	0.13
tblVehicleEF	LDT1	0.24	1.38
tblVehicleEF	LDT1	0.31	0.48
tblVehicleEF	LDT2	8.6510e-003	0.02
tblVehicleEF	LDT2	9.5370e-003	0.01
tblVehicleEF	LDT2	1.00	1.74
tblVehicleEF	LDT2	1.89	3.41
tblVehicleEF	LDT2	407.00	438.82
tblVehicleEF	LDT2	85.85	91.13
tblVehicleEF	LDT2	0.11	0.20
tblVehicleEF	LDT2	0.17	0.33
tblVehicleEF	LDT2	2.0070e-003	2.1060e-003
tblVehicleEF	LDT2	2.3040e-003	2.7960e-003
tblVehicleEF	LDT2	1.8460e-003	1.9330e-003
tblVehicleEF	LDT2	2.1190e-003	2.5710e-003
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.13	0.17

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.07	0.54
tblVehicleEF	LDT2	0.13	0.26
tblVehicleEF	LDT2	4.0790e-003	4.9110e-003
tblVehicleEF	LDT2	8.9100e-004	1.0600e-003
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.13	0.17
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.03	0.07
tblVehicleEF	LDT2	0.07	0.54
tblVehicleEF	LDT2	0.14	0.27
tblVehicleEF	LDT2	9.2110e-003	0.02
tblVehicleEF	LDT2	8.4430e-003	0.01
tblVehicleEF	LDT2	1.11	1.90
tblVehicleEF	LDT2	1.62	2.69
tblVehicleEF	LDT2	427.27	460.85
tblVehicleEF	LDT2	85.85	91.13
tblVehicleEF	LDT2	0.09	0.18
tblVehicleEF	LDT2	0.16	0.30
tblVehicleEF	LDT2	2.0070e-003	2.1060e-003
tblVehicleEF	LDT2	2.3040e-003	2.7960e-003
tblVehicleEF	LDT2	1.8460e-003	1.9330e-003
tblVehicleEF	LDT2	2.1190e-003	2.5710e-003
tblVehicleEF	LDT2	0.09	0.12
tblVehicleEF	LDT2	0.14	0.18
tblVehicleEF	LDT2	0.08	0.10

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LDT2	0.02	0.05
tblVehicleEF	LDT2	0.06	0.51
tblVehicleEF	LDT2	0.11	0.22
tblVehicleEF	LDT2	4.2830e-003	5.1600e-003
tblVehicleEF	LDT2	8.8600e-004	1.0470e-003
tblVehicleEF	LDT2	0.09	0.12
tblVehicleEF	LDT2	0.14	0.18
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.03	0.07
tblVehicleEF	LDT2	0.06	0.51
tblVehicleEF	LDT2	0.12	0.23
tblVehicleEF	LDT2	8.4870e-003	0.02
tblVehicleEF	LDT2	9.7290e-003	0.01
tblVehicleEF	LDT2	0.97	1.68
tblVehicleEF	LDT2	1.94	3.52
tblVehicleEF	LDT2	400.61	432.02
tblVehicleEF	LDT2	85.85	91.13
tblVehicleEF	LDT2	0.10	0.20
tblVehicleEF	LDT2	0.17	0.33
tblVehicleEF	LDT2	2.0070e-003	2.1060e-003
tblVehicleEF	LDT2	2.3040e-003	2.7960e-003
tblVehicleEF	LDT2	1.8460e-003	1.9330e-003
tblVehicleEF	LDT2	2.1190e-003	2.5710e-003
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.14	0.19
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LDT2	0.08	0.63
tblVehicleEF	LDT2	0.13	0.26
tblVehicleEF	LDT2	4.0150e-003	4.8340e-003
tblVehicleEF	LDT2	8.9200e-004	1.0620e-003
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.14	0.19
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.03	0.06
tblVehicleEF	LDT2	0.08	0.63
tblVehicleEF	LDT2	0.14	0.28
tblVehicleEF	LHD1	6.4170e-003	1.3110e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.16	0.19
tblVehicleEF	LHD1	1.13	1.62
tblVehicleEF	LHD1	3.25	5.26
tblVehicleEF	LHD1	8.97	8.33
tblVehicleEF	LHD1	628.02	575.99
tblVehicleEF	LHD1	35.73	44.68
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	1.51	1.39
tblVehicleEF	LHD1	1.14	1.46
tblVehicleEF	LHD1	8.1500e-004	4.8300e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	9.8570e-003	8.9380e-003
tblVehicleEF	LHD1	0.01	8.5960e-003
tblVehicleEF	LHD1	1.2060e-003	1.4100e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LHD1	7.8000e-004	4.4400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.4640e-003	2.2350e-003
tblVehicleEF	LHD1	0.01	7.9120e-003
tblVehicleEF	LHD1	1.1110e-003	1.2920e-003
tblVehicleEF	LHD1	3.4850e-003	3.0250e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.9910e-003	1.7160e-003
tblVehicleEF	LHD1	0.08	0.12
tblVehicleEF	LHD1	0.32	0.44
tblVehicleEF	LHD1	0.33	0.48
tblVehicleEF	LHD1	9.1000e-005	8.8000e-005
tblVehicleEF	LHD1	6.1830e-003	5.8690e-003
tblVehicleEF	LHD1	4.1900e-004	5.5500e-004
tblVehicleEF	LHD1	3.4850e-003	3.0250e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.9910e-003	1.7160e-003
tblVehicleEF	LHD1	0.10	0.14
tblVehicleEF	LHD1	0.32	0.44
tblVehicleEF	LHD1	0.36	0.51
tblVehicleEF	LHD1	6.4170e-003	1.3110e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.16	0.19
tblVehicleEF	LHD1	1.14	1.65

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LHD1	3.10	4.26
tblVehicleEF	LHD1	8.97	8.33
tblVehicleEF	LHD1	628.02	575.99
tblVehicleEF	LHD1	35.73	44.68
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	1.42	1.29
tblVehicleEF	LHD1	1.10	1.40
tblVehicleEF	LHD1	8.1500e-004	4.8300e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	9.8570e-003	8.9380e-003
tblVehicleEF	LHD1	0.01	8.5960e-003
tblVehicleEF	LHD1	1.2060e-003	1.4100e-003
tblVehicleEF	LHD1	7.8000e-004	4.4400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.4640e-003	2.2350e-003
tblVehicleEF	LHD1	0.01	7.9120e-003
tblVehicleEF	LHD1	1.1110e-003	1.2920e-003
tblVehicleEF	LHD1	5.3620e-003	4.7540e-003
tblVehicleEF	LHD1	0.12	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.0080e-003	2.7430e-003
tblVehicleEF	LHD1	0.08	0.12
tblVehicleEF	LHD1	0.31	0.43
tblVehicleEF	LHD1	0.32	0.43
tblVehicleEF	LHD1	9.1000e-005	8.8000e-005
tblVehicleEF	LHD1	6.1840e-003	5.8700e-003
tblVehicleEF	LHD1	4.1600e-004	5.3800e-004

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LHD1	5.3620e-003	4.7540e-003
tblVehicleEF	LHD1	0.12	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	3.0080e-003	2.7430e-003
tblVehicleEF	LHD1	0.10	0.14
tblVehicleEF	LHD1	0.31	0.43
tblVehicleEF	LHD1	0.35	0.45
tblVehicleEF	LHD1	6.4170e-003	1.3110e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.16	0.19
tblVehicleEF	LHD1	1.12	1.62
tblVehicleEF	LHD1	3.26	5.31
tblVehicleEF	LHD1	8.97	8.33
tblVehicleEF	LHD1	628.02	575.99
tblVehicleEF	LHD1	35.73	44.68
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	1.48	1.37
tblVehicleEF	LHD1	1.15	1.47
tblVehicleEF	LHD1	8.1500e-004	4.8300e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	9.8570e-003	8.9380e-003
tblVehicleEF	LHD1	0.01	8.5960e-003
tblVehicleEF	LHD1	1.2060e-003	1.4100e-003
tblVehicleEF	LHD1	7.8000e-004	4.4400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.4640e-003	2.2350e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LHD1	0.01	7.9120e-003
tblVehicleEF	LHD1	1.1110e-003	1.2920e-003
tblVehicleEF	LHD1	3.7080e-003	3.3330e-003
tblVehicleEF	LHD1	0.13	0.09
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.0050e-003	1.7620e-003
tblVehicleEF	LHD1	0.08	0.12
tblVehicleEF	LHD1	0.35	0.48
tblVehicleEF	LHD1	0.33	0.49
tblVehicleEF	LHD1	9.1000e-005	8.8000e-005
tblVehicleEF	LHD1	6.1830e-003	5.8690e-003
tblVehicleEF	LHD1	4.1900e-004	5.5600e-004
tblVehicleEF	LHD1	3.7080e-003	3.3330e-003
tblVehicleEF	LHD1	0.13	0.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.0050e-003	1.7620e-003
tblVehicleEF	LHD1	0.10	0.14
tblVehicleEF	LHD1	0.35	0.48
tblVehicleEF	LHD1	0.36	0.52
tblVehicleEF	LHD2	4.7490e-003	1.0270e-003
tblVehicleEF	LHD2	6.4910e-003	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	0.53	1.19
tblVehicleEF	LHD2	1.73	3.41
tblVehicleEF	LHD2	13.70	9.17
tblVehicleEF	LHD2	639.78	555.47

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LHD2	30.01	30.93
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	1.23	2.24
tblVehicleEF	LHD2	0.69	0.98
tblVehicleEF	LHD2	1.2020e-003	1.0610e-003
tblVehicleEF	LHD2	0.09	0.06
tblVehicleEF	LHD2	0.01	9.9690e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	5.7900e-004	9.4300e-004
tblVehicleEF	LHD2	1.1500e-003	9.7600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6270e-003	2.4920e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	5.3300e-004	8.4800e-004
tblVehicleEF	LHD2	1.5350e-003	1.9500e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.1500e-004	1.1090e-003
tblVehicleEF	LHD2	0.06	0.11
tblVehicleEF	LHD2	0.12	0.30
tblVehicleEF	LHD2	0.17	0.32
tblVehicleEF	LHD2	1.3400e-004	9.4000e-005
tblVehicleEF	LHD2	6.2430e-003	5.5890e-003
tblVehicleEF	LHD2	3.3200e-004	3.8000e-004
tblVehicleEF	LHD2	1.5350e-003	1.9500e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.03

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LHD2	9.1500e-004	1.1090e-003
tblVehicleEF	LHD2	0.07	0.13
tblVehicleEF	LHD2	0.12	0.30
tblVehicleEF	LHD2	0.18	0.34
tblVehicleEF	LHD2	4.7490e-003	1.0270e-003
tblVehicleEF	LHD2	6.5890e-003	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	0.54	1.20
tblVehicleEF	LHD2	1.65	2.79
tblVehicleEF	LHD2	13.70	9.17
tblVehicleEF	LHD2	639.78	555.47
tblVehicleEF	LHD2	30.01	30.93
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	1.16	2.10
tblVehicleEF	LHD2	0.67	0.95
tblVehicleEF	LHD2	1.2020e-003	1.0610e-003
tblVehicleEF	LHD2	0.09	0.06
tblVehicleEF	LHD2	0.01	9.9690e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	5.7900e-004	9.4300e-004
tblVehicleEF	LHD2	1.1500e-003	9.7600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6270e-003	2.4920e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	5.3300e-004	8.4800e-004
tblVehicleEF	LHD2	2.3440e-003	3.0390e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3630e-003	1.7540e-003
tblVehicleEF	LHD2	0.06	0.11
tblVehicleEF	LHD2	0.11	0.29
tblVehicleEF	LHD2	0.16	0.28
tblVehicleEF	LHD2	1.3400e-004	9.4000e-005
tblVehicleEF	LHD2	6.2440e-003	5.5890e-003
tblVehicleEF	LHD2	3.3100e-004	3.6900e-004
tblVehicleEF	LHD2	2.3440e-003	3.0390e-003
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	1.3630e-003	1.7540e-003
tblVehicleEF	LHD2	0.07	0.13
tblVehicleEF	LHD2	0.11	0.29
tblVehicleEF	LHD2	0.18	0.30
tblVehicleEF	LHD2	4.7490e-003	1.0270e-003
tblVehicleEF	LHD2	6.4700e-003	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	0.53	1.19
tblVehicleEF	LHD2	1.74	3.46
tblVehicleEF	LHD2	13.70	9.17
tblVehicleEF	LHD2	639.78	555.47
tblVehicleEF	LHD2	30.01	30.93
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	1.21	2.20

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LHD2	0.70	0.99
tblVehicleEF	LHD2	1.2020e-003	1.0610e-003
tblVehicleEF	LHD2	0.09	0.06
tblVehicleEF	LHD2	0.01	9.9690e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	5.7900e-004	9.4300e-004
tblVehicleEF	LHD2	1.1500e-003	9.7600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6270e-003	2.4920e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	5.3300e-004	8.4800e-004
tblVehicleEF	LHD2	1.6050e-003	2.1370e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.0900e-004	1.1260e-003
tblVehicleEF	LHD2	0.06	0.11
tblVehicleEF	LHD2	0.13	0.33
tblVehicleEF	LHD2	0.17	0.32
tblVehicleEF	LHD2	1.3400e-004	9.4000e-005
tblVehicleEF	LHD2	6.2430e-003	5.5890e-003
tblVehicleEF	LHD2	3.3200e-004	3.8100e-004
tblVehicleEF	LHD2	1.6050e-003	2.1370e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	9.0900e-004	1.1260e-003
tblVehicleEF	LHD2	0.07	0.13
tblVehicleEF	LHD2	0.13	0.33

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	LHD2	0.18	0.34
tblVehicleEF	MCY	0.49	0.00
tblVehicleEF	MCY	0.15	0.00
tblVehicleEF	MCY	19.76	23.31
tblVehicleEF	MCY	9.59	9.78
tblVehicleEF	MCY	181.27	146.62
tblVehicleEF	MCY	46.13	44.89
tblVehicleEF	MCY	1.13	1.19
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	2.0990e-003	5.7600e-004
tblVehicleEF	MCY	4.0820e-003	1.8570e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.9660e-003	4.6500e-004
tblVehicleEF	MCY	3.8580e-003	1.4690e-003
tblVehicleEF	MCY	1.15	0.99
tblVehicleEF	MCY	0.71	0.47
tblVehicleEF	MCY	0.70	0.57
tblVehicleEF	MCY	2.54	2.50
tblVehicleEF	MCY	0.67	1.63
tblVehicleEF	MCY	2.09	2.14
tblVehicleEF	MCY	2.2110e-003	1.9480e-003
tblVehicleEF	MCY	6.8000e-004	6.8100e-004
tblVehicleEF	MCY	1.15	0.99
tblVehicleEF	MCY	0.71	0.47

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MCY	0.70	0.57
tblVehicleEF	MCY	3.12	2.74
tblVehicleEF	MCY	0.67	1.63
tblVehicleEF	MCY	2.28	2.30
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	0.14	0.00
tblVehicleEF	MCY	19.11	22.46
tblVehicleEF	MCY	8.83	8.74
tblVehicleEF	MCY	181.27	146.62
tblVehicleEF	MCY	46.13	44.89
tblVehicleEF	MCY	0.99	1.04
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	2.0990e-003	5.7600e-004
tblVehicleEF	MCY	4.0820e-003	1.8570e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.9660e-003	4.6500e-004
tblVehicleEF	MCY	3.8580e-003	1.4690e-003
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.80	0.56
tblVehicleEF	MCY	1.22	1.08
tblVehicleEF	MCY	2.47	2.42
tblVehicleEF	MCY	0.64	1.54
tblVehicleEF	MCY	1.86	1.87
tblVehicleEF	MCY	2.1990e-003	1.9330e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MCY	6.6000e-004	6.5600e-004
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.80	0.56
tblVehicleEF	MCY	1.22	1.08
tblVehicleEF	MCY	3.05	2.66
tblVehicleEF	MCY	0.64	1.54
tblVehicleEF	MCY	2.03	2.01
tblVehicleEF	MCY	0.50	0.00
tblVehicleEF	MCY	0.16	0.00
tblVehicleEF	MCY	19.78	23.22
tblVehicleEF	MCY	9.67	9.83
tblVehicleEF	MCY	181.27	146.62
tblVehicleEF	MCY	46.13	44.89
tblVehicleEF	MCY	1.10	1.16
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	2.0990e-003	5.7600e-004
tblVehicleEF	MCY	4.0820e-003	1.8570e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.9660e-003	4.6500e-004
tblVehicleEF	MCY	3.8580e-003	1.4690e-003
tblVehicleEF	MCY	1.28	1.12
tblVehicleEF	MCY	0.93	0.62
tblVehicleEF	MCY	0.69	0.56
tblVehicleEF	MCY	2.55	2.51

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MCY	0.77	1.90
tblVehicleEF	MCY	2.12	2.16
tblVehicleEF	MCY	2.2120e-003	1.9470e-003
tblVehicleEF	MCY	6.8200e-004	6.8300e-004
tblVehicleEF	MCY	1.28	1.12
tblVehicleEF	MCY	0.93	0.62
tblVehicleEF	MCY	0.69	0.56
tblVehicleEF	MCY	3.13	2.75
tblVehicleEF	MCY	0.77	1.90
tblVehicleEF	MCY	2.31	2.32
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	1.80	2.48
tblVehicleEF	MDV	3.44	5.20
tblVehicleEF	MDV	542.86	569.41
tblVehicleEF	MDV	112.92	117.95
tblVehicleEF	MDV	0.20	0.32
tblVehicleEF	MDV	0.33	0.51
tblVehicleEF	MDV	2.2600e-003	2.3560e-003
tblVehicleEF	MDV	2.6010e-003	3.2850e-003
tblVehicleEF	MDV	2.0860e-003	2.1660e-003
tblVehicleEF	MDV	2.3950e-003	3.0250e-003
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.18	0.19
tblVehicleEF	MDV	0.08	0.08
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.10	0.61

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MDV	0.28	0.45
tblVehicleEF	MDV	5.4460e-003	6.2130e-003
tblVehicleEF	MDV	1.1900e-003	1.3570e-003
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.18	0.19
tblVehicleEF	MDV	0.08	0.08
tblVehicleEF	MDV	0.07	0.10
tblVehicleEF	MDV	0.10	0.61
tblVehicleEF	MDV	0.30	0.48
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	1.96	2.72
tblVehicleEF	MDV	2.95	4.10
tblVehicleEF	MDV	569.76	598.53
tblVehicleEF	MDV	112.92	117.95
tblVehicleEF	MDV	0.18	0.28
tblVehicleEF	MDV	0.30	0.47
tblVehicleEF	MDV	2.2600e-003	2.3560e-003
tblVehicleEF	MDV	2.6010e-003	3.2850e-003
tblVehicleEF	MDV	2.0860e-003	2.1660e-003
tblVehicleEF	MDV	2.3950e-003	3.0250e-003
tblVehicleEF	MDV	0.13	0.14
tblVehicleEF	MDV	0.19	0.21
tblVehicleEF	MDV	0.11	0.12
tblVehicleEF	MDV	0.05	0.08
tblVehicleEF	MDV	0.09	0.58
tblVehicleEF	MDV	0.24	0.38

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MDV	5.7170e-003	6.5340e-003
tblVehicleEF	MDV	1.1820e-003	1.3370e-003
tblVehicleEF	MDV	0.13	0.14
tblVehicleEF	MDV	0.19	0.21
tblVehicleEF	MDV	0.11	0.12
tblVehicleEF	MDV	0.07	0.11
tblVehicleEF	MDV	0.09	0.58
tblVehicleEF	MDV	0.27	0.41
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	1.75	2.40
tblVehicleEF	MDV	3.52	5.36
tblVehicleEF	MDV	534.57	560.75
tblVehicleEF	MDV	112.92	117.95
tblVehicleEF	MDV	0.20	0.31
tblVehicleEF	MDV	0.33	0.51
tblVehicleEF	MDV	2.2600e-003	2.3560e-003
tblVehicleEF	MDV	2.6010e-003	3.2850e-003
tblVehicleEF	MDV	2.0860e-003	2.1660e-003
tblVehicleEF	MDV	2.3950e-003	3.0250e-003
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.19	0.22
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.11	0.71
tblVehicleEF	MDV	0.28	0.46
tblVehicleEF	MDV	5.3620e-003	6.1170e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MDV	1.1920e-003	1.3600e-003
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.19	0.22
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.07	0.10
tblVehicleEF	MDV	0.11	0.71
tblVehicleEF	MDV	0.31	0.49
tblVehicleEF	MH	0.04	0.00
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	3.93	5.07
tblVehicleEF	MH	7.37	9.55
tblVehicleEF	MH	1,116.45	655.44
tblVehicleEF	MH	64.06	32.38
tblVehicleEF	MH	1.49	1.74
tblVehicleEF	MH	0.92	0.90
tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.5860e-003
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.7470e-003	1.7920e-003
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2100e-003	2.1470e-003
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.6230e-003	1.5470e-003
tblVehicleEF	MH	1.32	1.38
tblVehicleEF	MH	0.09	0.09
tblVehicleEF	MH	0.52	0.54
tblVehicleEF	MH	0.14	0.16

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MH	0.02	2.06
tblVehicleEF	MH	0.46	0.59
tblVehicleEF	MH	0.01	6.7220e-003
tblVehicleEF	MH	7.7000e-004	5.0000e-004
tblVehicleEF	MH	1.32	1.38
tblVehicleEF	MH	0.09	0.09
tblVehicleEF	MH	0.52	0.54
tblVehicleEF	MH	0.19	0.20
tblVehicleEF	MH	0.02	2.06
tblVehicleEF	MH	0.50	0.63
tblVehicleEF	MH	0.04	0.00
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	3.98	5.12
tblVehicleEF	MH	6.95	7.61
tblVehicleEF	MH	1,116.45	655.44
tblVehicleEF	MH	64.06	32.38
tblVehicleEF	MH	1.37	1.59
tblVehicleEF	MH	0.88	0.86
tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.5860e-003
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.7470e-003	1.7920e-003
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2100e-003	2.1470e-003
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.6230e-003	1.5470e-003
tblVehicleEF	MH	2.01	2.13

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MH	0.09	0.09
tblVehicleEF	MH	0.81	0.86
tblVehicleEF	MH	0.14	0.16
tblVehicleEF	MH	0.02	2.02
tblVehicleEF	MH	0.44	0.50
tblVehicleEF	MH	0.01	6.7230e-003
tblVehicleEF	MH	7.6300e-004	4.6700e-004
tblVehicleEF	MH	2.01	2.13
tblVehicleEF	MH	0.09	0.09
tblVehicleEF	MH	0.81	0.86
tblVehicleEF	MH	0.20	0.20
tblVehicleEF	MH	0.02	2.02
tblVehicleEF	MH	0.48	0.53
tblVehicleEF	MH	0.04	0.00
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	3.91	5.06
tblVehicleEF	MH	7.41	9.61
tblVehicleEF	MH	1,116.45	655.44
tblVehicleEF	MH	64.06	32.38
tblVehicleEF	MH	1.46	1.71
tblVehicleEF	MH	0.93	0.90
tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.5860e-003
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.7470e-003	1.7920e-003
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2100e-003	2.1470e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.6230e-003	1.5470e-003
tblVehicleEF	MH	1.51	1.64
tblVehicleEF	MH	0.11	0.12
tblVehicleEF	MH	0.55	0.58
tblVehicleEF	MH	0.14	0.16
tblVehicleEF	MH	0.02	2.18
tblVehicleEF	MH	0.46	0.59
tblVehicleEF	MH	0.01	6.7220e-003
tblVehicleEF	MH	7.7100e-004	5.0100e-004
tblVehicleEF	MH	1.51	1.64
tblVehicleEF	MH	0.11	0.12
tblVehicleEF	MH	0.55	0.58
tblVehicleEF	MH	0.19	0.20
tblVehicleEF	MH	0.02	2.18
tblVehicleEF	MH	0.51	0.64
tblVehicleEF	MHD	0.02	7.6240e-003
tblVehicleEF	MHD	0.01	5.8760e-003
tblVehicleEF	MHD	0.06	0.00
tblVehicleEF	MHD	0.48	1.84
tblVehicleEF	MHD	0.72	1.37
tblVehicleEF	MHD	7.66	21.37
tblVehicleEF	MHD	141.59	608.92
tblVehicleEF	MHD	1,148.11	998.42
tblVehicleEF	MHD	63.11	59.25
tblVehicleEF	MHD	1.08	6.68
tblVehicleEF	MHD	2.53	3.73

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MHD	10.44	2.19
tblVehicleEF	MHD	4.1190e-003	0.03
tblVehicleEF	MHD	0.13	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	9.6700e-004	3.7660e-003
tblVehicleEF	MHD	3.9400e-003	0.03
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8110e-003
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	8.9000e-004	3.1830e-003
tblVehicleEF	MHD	1.4130e-003	3.6720e-003
tblVehicleEF	MHD	0.05	0.15
tblVehicleEF	MHD	0.04	0.16
tblVehicleEF	MHD	8.4300e-004	2.1070e-003
tblVehicleEF	MHD	0.13	0.17
tblVehicleEF	MHD	0.02	0.62
tblVehicleEF	MHD	0.47	1.44
tblVehicleEF	MHD	1.3630e-003	5.9580e-003
tblVehicleEF	MHD	0.01	9.8350e-003
tblVehicleEF	MHD	7.6600e-004	9.8800e-004
tblVehicleEF	MHD	1.4130e-003	3.6720e-003
tblVehicleEF	MHD	0.05	0.15
tblVehicleEF	MHD	0.05	0.19
tblVehicleEF	MHD	8.4300e-004	2.1070e-003
tblVehicleEF	MHD	0.16	0.19
tblVehicleEF	MHD	0.02	0.62

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MHD	0.51	1.55
tblVehicleEF	MHD	0.02	7.1850e-003
tblVehicleEF	MHD	0.01	5.8760e-003
tblVehicleEF	MHD	0.06	0.00
tblVehicleEF	MHD	0.35	1.33
tblVehicleEF	MHD	0.73	1.38
tblVehicleEF	MHD	7.28	17.62
tblVehicleEF	MHD	149.97	645.10
tblVehicleEF	MHD	1,148.11	998.42
tblVehicleEF	MHD	63.11	59.25
tblVehicleEF	MHD	1.11	6.90
tblVehicleEF	MHD	2.38	3.51
tblVehicleEF	MHD	10.39	2.10
tblVehicleEF	MHD	3.4720e-003	0.02
tblVehicleEF	MHD	0.13	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	9.6700e-004	3.7660e-003
tblVehicleEF	MHD	3.3220e-003	0.02
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8110e-003
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	8.9000e-004	3.1830e-003
tblVehicleEF	MHD	2.1640e-003	5.7640e-003
tblVehicleEF	MHD	0.05	0.16
tblVehicleEF	MHD	0.03	0.15
tblVehicleEF	MHD	1.2710e-003	3.3810e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MHD	0.13	0.17
tblVehicleEF	MHD	0.02	0.61
tblVehicleEF	MHD	0.45	1.25
tblVehicleEF	MHD	1.4420e-003	6.3120e-003
tblVehicleEF	MHD	0.01	9.8350e-003
tblVehicleEF	MHD	7.5900e-004	9.2300e-004
tblVehicleEF	MHD	2.1640e-003	5.7640e-003
tblVehicleEF	MHD	0.05	0.16
tblVehicleEF	MHD	0.05	0.18
tblVehicleEF	MHD	1.2710e-003	3.3810e-003
tblVehicleEF	MHD	0.16	0.19
tblVehicleEF	MHD	0.02	0.61
tblVehicleEF	MHD	0.49	1.34
tblVehicleEF	MHD	0.02	8.2310e-003
tblVehicleEF	MHD	0.01	5.8760e-003
tblVehicleEF	MHD	0.06	0.00
tblVehicleEF	MHD	0.67	2.53
tblVehicleEF	MHD	0.72	1.37
tblVehicleEF	MHD	7.72	21.81
tblVehicleEF	MHD	130.01	558.96
tblVehicleEF	MHD	1,148.11	998.42
tblVehicleEF	MHD	63.11	59.25
tblVehicleEF	MHD	1.03	6.39
tblVehicleEF	MHD	2.48	3.66
tblVehicleEF	MHD	10.45	2.21
tblVehicleEF	MHD	5.0120e-003	0.03
tblVehicleEF	MHD	0.13	0.11

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	9.6700e-004	3.7660e-003
tblVehicleEF	MHD	4.7950e-003	0.03
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8110e-003
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	8.9000e-004	3.1830e-003
tblVehicleEF	MHD	1.5060e-003	4.1180e-003
tblVehicleEF	MHD	0.06	0.18
tblVehicleEF	MHD	0.04	0.18
tblVehicleEF	MHD	8.4900e-004	2.1990e-003
tblVehicleEF	MHD	0.13	0.17
tblVehicleEF	MHD	0.03	0.67
tblVehicleEF	MHD	0.47	1.47
tblVehicleEF	MHD	1.2550e-003	5.4690e-003
tblVehicleEF	MHD	0.01	9.8350e-003
tblVehicleEF	MHD	7.6700e-004	9.9500e-004
tblVehicleEF	MHD	1.5060e-003	4.1180e-003
tblVehicleEF	MHD	0.06	0.18
tblVehicleEF	MHD	0.05	0.20
tblVehicleEF	MHD	8.4900e-004	2.1990e-003
tblVehicleEF	MHD	0.16	0.19
tblVehicleEF	MHD	0.03	0.67
tblVehicleEF	MHD	0.52	1.57
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.01	3.0860e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	OBUS	0.03	0.00
tblVehicleEF	OBUS	0.29	2.24
tblVehicleEF	OBUS	0.79	1.60
tblVehicleEF	OBUS	6.58	11.29
tblVehicleEF	OBUS	99.76	576.20
tblVehicleEF	OBUS	1,260.80	1,090.39
tblVehicleEF	OBUS	70.22	36.66
tblVehicleEF	OBUS	0.62	6.46
tblVehicleEF	OBUS	2.19	4.83
tblVehicleEF	OBUS	2.52	1.54
tblVehicleEF	OBUS	3.3900e-004	0.02
tblVehicleEF	OBUS	0.13	0.09
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.01	0.06
tblVehicleEF	OBUS	8.3100e-004	1.1410e-003
tblVehicleEF	OBUS	3.2400e-004	0.02
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.0000e-003	2.6140e-003
tblVehicleEF	OBUS	0.01	0.06
tblVehicleEF	OBUS	7.6700e-004	9.9500e-004
tblVehicleEF	OBUS	1.6300e-003	1.0210e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.40
tblVehicleEF	OBUS	8.1800e-004	5.0600e-004
tblVehicleEF	OBUS	0.08	0.17
tblVehicleEF	OBUS	0.04	0.30
tblVehicleEF	OBUS	0.42	0.71

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	OBUS	9.6400e-004	5.6380e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.1800e-004	5.7500e-004
tblVehicleEF	OBUS	1.6300e-003	1.0210e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.45
tblVehicleEF	OBUS	8.1800e-004	5.0600e-004
tblVehicleEF	OBUS	0.09	0.20
tblVehicleEF	OBUS	0.04	0.30
tblVehicleEF	OBUS	0.46	0.76
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.01	3.0860e-003
tblVehicleEF	OBUS	0.03	0.00
tblVehicleEF	OBUS	0.27	1.63
tblVehicleEF	OBUS	0.80	1.62
tblVehicleEF	OBUS	6.21	9.20
tblVehicleEF	OBUS	104.67	610.43
tblVehicleEF	OBUS	1,260.80	1,090.39
tblVehicleEF	OBUS	70.22	36.66
tblVehicleEF	OBUS	0.64	6.67
tblVehicleEF	OBUS	2.06	4.54
tblVehicleEF	OBUS	2.48	1.48
tblVehicleEF	OBUS	2.8600e-004	0.02
tblVehicleEF	OBUS	0.13	0.09
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.01	0.06
tblVehicleEF	OBUS	8.3100e-004	1.1410e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	OBUS	2.7400e-004	0.02
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.0000e-003	2.6140e-003
tblVehicleEF	OBUS	0.01	0.06
tblVehicleEF	OBUS	7.6700e-004	9.9500e-004
tblVehicleEF	OBUS	2.4520e-003	1.5430e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.37
tblVehicleEF	OBUS	1.2320e-003	7.8000e-004
tblVehicleEF	OBUS	0.08	0.17
tblVehicleEF	OBUS	0.04	0.29
tblVehicleEF	OBUS	0.40	0.63
tblVehicleEF	OBUS	1.0110e-003	5.9730e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.1200e-004	5.4000e-004
tblVehicleEF	OBUS	2.4520e-003	1.5430e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.43
tblVehicleEF	OBUS	1.2320e-003	7.8000e-004
tblVehicleEF	OBUS	0.09	0.20
tblVehicleEF	OBUS	0.04	0.29
tblVehicleEF	OBUS	0.44	0.67
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.01	3.0860e-003
tblVehicleEF	OBUS	0.03	0.00
tblVehicleEF	OBUS	0.31	3.09
tblVehicleEF	OBUS	0.79	1.60

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	OBUS	6.63	11.51
tblVehicleEF	OBUS	92.98	528.93
tblVehicleEF	OBUS	1,260.80	1,090.39
tblVehicleEF	OBUS	70.22	36.66
tblVehicleEF	OBUS	0.59	6.17
tblVehicleEF	OBUS	2.15	4.74
tblVehicleEF	OBUS	2.53	1.55
tblVehicleEF	OBUS	4.1300e-004	0.03
tblVehicleEF	OBUS	0.13	0.09
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.01	0.06
tblVehicleEF	OBUS	8.3100e-004	1.1410e-003
tblVehicleEF	OBUS	3.9500e-004	0.02
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.0000e-003	2.6140e-003
tblVehicleEF	OBUS	0.01	0.06
tblVehicleEF	OBUS	7.6700e-004	9.9500e-004
tblVehicleEF	OBUS	1.7120e-003	1.1110e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.43
tblVehicleEF	OBUS	8.1800e-004	5.1600e-004
tblVehicleEF	OBUS	0.08	0.17
tblVehicleEF	OBUS	0.05	0.32
tblVehicleEF	OBUS	0.42	0.73
tblVehicleEF	OBUS	8.9900e-004	5.1760e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.1900e-004	5.7900e-004

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	OBUS	1.7120e-003	1.1110e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.49
tblVehicleEF	OBUS	8.1800e-004	5.1600e-004
tblVehicleEF	OBUS	0.09	0.20
tblVehicleEF	OBUS	0.05	0.32
tblVehicleEF	OBUS	0.46	0.78
tblVehicleEF	SBUS	0.88	5.4240e-003
tblVehicleEF	SBUS	0.02	7.7120e-003
tblVehicleEF	SBUS	0.08	0.00
tblVehicleEF	SBUS	7.59	1.05
tblVehicleEF	SBUS	0.94	5.14
tblVehicleEF	SBUS	7.92	34.39
tblVehicleEF	SBUS	1,174.33	576.19
tblVehicleEF	SBUS	1,118.12	1,136.12
tblVehicleEF	SBUS	50.02	130.61
tblVehicleEF	SBUS	11.41	8.14
tblVehicleEF	SBUS	5.43	8.33
tblVehicleEF	SBUS	13.15	2.27
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.74	0.57
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.09
tblVehicleEF	SBUS	6.9000e-004	7.3700e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.32	0.25
tblVehicleEF	SBUS	2.7130e-003	2.7590e-003

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	SBUS	0.03	0.08
tblVehicleEF	SBUS	6.3400e-004	6.3160e-003
tblVehicleEF	SBUS	3.8500e-003	0.04
tblVehicleEF	SBUS	0.03	0.29
tblVehicleEF	SBUS	0.92	0.12
tblVehicleEF	SBUS	1.7780e-003	0.02
tblVehicleEF	SBUS	0.13	0.44
tblVehicleEF	SBUS	0.02	2.25
tblVehicleEF	SBUS	0.42	2.36
tblVehicleEF	SBUS	0.01	5.6380e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.3700e-004	1.9520e-003
tblVehicleEF	SBUS	3.8500e-003	0.04
tblVehicleEF	SBUS	0.03	0.29
tblVehicleEF	SBUS	1.32	0.13
tblVehicleEF	SBUS	1.7780e-003	0.02
tblVehicleEF	SBUS	0.15	0.49
tblVehicleEF	SBUS	0.02	2.25
tblVehicleEF	SBUS	0.46	2.53
tblVehicleEF	SBUS	0.88	5.1110e-003
tblVehicleEF	SBUS	0.02	7.7120e-003
tblVehicleEF	SBUS	0.07	0.00
tblVehicleEF	SBUS	7.45	0.77
tblVehicleEF	SBUS	0.95	5.11
tblVehicleEF	SBUS	6.31	29.56
tblVehicleEF	SBUS	1,229.44	610.42
tblVehicleEF	SBUS	1,118.12	1,136.12

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	SBUS	50.02	130.61
tblVehicleEF	SBUS	11.78	8.40
tblVehicleEF	SBUS	5.12	7.84
tblVehicleEF	SBUS	13.12	2.15
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.74	0.57
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.09
tblVehicleEF	SBUS	6.9000e-004	7.3700e-003
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.32	0.25
tblVehicleEF	SBUS	2.7130e-003	2.7590e-003
tblVehicleEF	SBUS	0.03	0.08
tblVehicleEF	SBUS	6.3400e-004	6.3160e-003
tblVehicleEF	SBUS	5.8570e-003	0.06
tblVehicleEF	SBUS	0.03	0.29
tblVehicleEF	SBUS	0.91	0.11
tblVehicleEF	SBUS	2.7600e-003	0.03
tblVehicleEF	SBUS	0.13	0.44
tblVehicleEF	SBUS	0.02	2.07
tblVehicleEF	SBUS	0.37	2.08
tblVehicleEF	SBUS	0.01	5.9730e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.1100e-004	1.8670e-003
tblVehicleEF	SBUS	5.8570e-003	0.06
tblVehicleEF	SBUS	0.03	0.29
tblVehicleEF	SBUS	1.32	0.13

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	SBUS	2.7600e-003	0.03
tblVehicleEF	SBUS	0.15	0.49
tblVehicleEF	SBUS	0.02	2.07
tblVehicleEF	SBUS	0.40	2.23
tblVehicleEF	SBUS	0.88	5.8550e-003
tblVehicleEF	SBUS	0.02	7.7120e-003
tblVehicleEF	SBUS	0.08	0.00
tblVehicleEF	SBUS	7.79	1.45
tblVehicleEF	SBUS	0.93	5.12
tblVehicleEF	SBUS	8.16	35.31
tblVehicleEF	SBUS	1,098.22	528.91
tblVehicleEF	SBUS	1,118.12	1,136.12
tblVehicleEF	SBUS	50.02	130.61
tblVehicleEF	SBUS	10.91	7.78
tblVehicleEF	SBUS	5.34	8.20
tblVehicleEF	SBUS	13.16	2.30
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.74	0.57
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.09
tblVehicleEF	SBUS	6.9000e-004	7.3700e-003
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.32	0.25
tblVehicleEF	SBUS	2.7130e-003	2.7590e-003
tblVehicleEF	SBUS	0.03	0.08
tblVehicleEF	SBUS	6.3400e-004	6.3160e-003
tblVehicleEF	SBUS	4.0850e-003	0.05

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	SBUS	0.03	0.36
tblVehicleEF	SBUS	0.92	0.13
tblVehicleEF	SBUS	1.7790e-003	0.02
tblVehicleEF	SBUS	0.13	0.43
tblVehicleEF	SBUS	0.02	2.65
tblVehicleEF	SBUS	0.43	2.42
tblVehicleEF	SBUS	0.01	5.1750e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.4100e-004	1.9680e-003
tblVehicleEF	SBUS	4.0850e-003	0.05
tblVehicleEF	SBUS	0.03	0.36
tblVehicleEF	SBUS	1.33	0.14
tblVehicleEF	SBUS	1.7790e-003	0.02
tblVehicleEF	SBUS	0.15	0.48
tblVehicleEF	SBUS	0.02	2.65
tblVehicleEF	SBUS	0.47	2.59
tblVehicleEF	UBUS	2.86	0.00
tblVehicleEF	UBUS	0.06	0.00
tblVehicleEF	UBUS	12.55	5.52
tblVehicleEF	UBUS	10.67	10.88
tblVehicleEF	UBUS	1,990.56	2,143.37
tblVehicleEF	UBUS	98.44	29.70
tblVehicleEF	UBUS	11.01	13.19
tblVehicleEF	UBUS	15.58	1.23
tblVehicleEF	UBUS	0.62	0.68
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.21

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	UBUS	1.0840e-003	8.3600e-004
tblVehicleEF	UBUS	0.26	0.29
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.13	0.19
tblVehicleEF	UBUS	1.0000e-003	7.4300e-004
tblVehicleEF	UBUS	5.3010e-003	5.8730e-003
tblVehicleEF	UBUS	0.09	0.10
tblVehicleEF	UBUS	2.8840e-003	3.2100e-003
tblVehicleEF	UBUS	0.95	0.83
tblVehicleEF	UBUS	0.02	0.72
tblVehicleEF	UBUS	0.80	0.80
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.1770e-003	5.0000e-004
tblVehicleEF	UBUS	5.3010e-003	5.8730e-003
tblVehicleEF	UBUS	0.09	0.10
tblVehicleEF	UBUS	2.8840e-003	3.2100e-003
tblVehicleEF	UBUS	3.92	0.92
tblVehicleEF	UBUS	0.02	0.72
tblVehicleEF	UBUS	0.88	0.85
tblVehicleEF	UBUS	2.86	0.00
tblVehicleEF	UBUS	0.05	0.00
tblVehicleEF	UBUS	12.59	5.55
tblVehicleEF	UBUS	9.25	9.18
tblVehicleEF	UBUS	1,990.56	2,143.37
tblVehicleEF	UBUS	98.44	29.70
tblVehicleEF	UBUS	10.38	12.43
tblVehicleEF	UBUS	15.52	1.18

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	UBUS	0.62	0.68
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.21
tblVehicleEF	UBUS	1.0840e-003	8.3600e-004
tblVehicleEF	UBUS	0.26	0.29
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.13	0.19
tblVehicleEF	UBUS	1.0000e-003	7.4300e-004
tblVehicleEF	UBUS	7.7720e-003	8.6970e-003
tblVehicleEF	UBUS	0.09	0.11
tblVehicleEF	UBUS	4.2990e-003	4.9400e-003
tblVehicleEF	UBUS	0.96	0.83
tblVehicleEF	UBUS	0.02	0.67
tblVehicleEF	UBUS	0.73	0.71
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.1520e-003	4.7100e-004
tblVehicleEF	UBUS	7.7720e-003	8.6970e-003
tblVehicleEF	UBUS	0.09	0.11
tblVehicleEF	UBUS	4.2990e-003	4.9400e-003
tblVehicleEF	UBUS	3.94	0.93
tblVehicleEF	UBUS	0.02	0.67
tblVehicleEF	UBUS	0.80	0.76
tblVehicleEF	UBUS	2.86	0.00
tblVehicleEF	UBUS	0.06	0.00
tblVehicleEF	UBUS	12.54	5.52
tblVehicleEF	UBUS	10.84	11.03
tblVehicleEF	UBUS	1,990.56	2,143.37

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

tblVehicleEF	UBUS	98.44	29.70
tblVehicleEF	UBUS	10.80	12.94
tblVehicleEF	UBUS	15.59	1.24
tblVehicleEF	UBUS	0.62	0.68
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.21
tblVehicleEF	UBUS	1.0840e-003	8.3600e-004
tblVehicleEF	UBUS	0.26	0.29
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.13	0.19
tblVehicleEF	UBUS	1.0000e-003	7.4300e-004
tblVehicleEF	UBUS	6.0670e-003	6.8580e-003
tblVehicleEF	UBUS	0.11	0.13
tblVehicleEF	UBUS	3.0940e-003	3.5170e-003
tblVehicleEF	UBUS	0.95	0.82
tblVehicleEF	UBUS	0.03	0.84
tblVehicleEF	UBUS	0.81	0.81
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.1800e-003	5.0300e-004
tblVehicleEF	UBUS	6.0670e-003	6.8580e-003
tblVehicleEF	UBUS	0.11	0.13
tblVehicleEF	UBUS	3.0940e-003	3.5170e-003
tblVehicleEF	UBUS	3.92	0.92
tblVehicleEF	UBUS	0.03	0.84
tblVehicleEF	UBUS	0.89	0.86

2.0 Emissions Summary

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

2.2 Overall Operational

Unmitigated Operational

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

Mitigated Operational

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

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/12/2018	11/30/2018	5	15	
2	Excavation	Trenching	11/19/2018	11/30/2018	5	10	
3	Pad Construction & Equip Install	Building Construction	11/19/2018	12/20/2018	5	24	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Skid Steer Loaders	1	2.70	73	0.37
Site Preparation	Excavators	2	4.00	23	0.38
Excavation	Excavators	1	5.00	153	0.38
Excavation	Other Construction Equipment	1	1.00	210	0.42
Excavation	Skid Steer Loaders	1	4.00	73	0.37
Pad Construction & Equip Install	Aerial Lifts	1	0.80	60	0.31
Pad Construction & Equip Install	Cement and Mortar Mixers	1	0.60	450	0.56
Pad Construction & Equip Install	Cranes	1	0.60	450	0.29
Pad Construction & Equip Install	Generator Sets	1	2.50	7	0.74
Pad Construction & Equip Install	Dumpers/Tenders	1	0.30	450	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pad Construction & Equip Install	9	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Excavation	3	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.1407	1.1373	1.2522	1.6200e-003		0.0663	0.0663		0.0610	0.0610		162.8592	162.8592	0.0507		164.1267
Total	0.1407	1.1373	1.2522	1.6200e-003	0.5303	0.0663	0.5965	0.0573	0.0610	0.1182		162.8592	162.8592	0.0507		164.1267

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.8600e-003	4.2300e-003	0.0456	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	8.0000e-005	3.0500e-003		11.4325	11.4325	3.9000e-004		11.4423
Total	5.8600e-003	4.2300e-003	0.0456	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	8.0000e-005	3.0500e-003		11.4325	11.4325	3.9000e-004		11.4423

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

3.2 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.0270	0.4502	0.5613	1.6200e-003		0.0119	0.0119		0.0110	0.0110	0.0000	162.8592	162.8592	0.0507		164.1267
Total	0.0270	0.4502	0.5613	1.6200e-003	0.5303	0.0119	0.5421	0.0573	0.0110	0.0682	0.0000	162.8592	162.8592	0.0507		164.1267

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.8600e-003	4.2300e-003	0.0456	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	8.0000e-005	3.0500e-003		11.4325	11.4325	3.9000e-004		11.4423
Total	5.8600e-003	4.2300e-003	0.0456	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	8.0000e-005	3.0500e-003		11.4325	11.4325	3.9000e-004		11.4423

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

3.3 Excavation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2264	2.5549	2.7642	4.2900e-003		0.1242	0.1242		0.1142	0.1142		431.1982	431.1982	0.1342		434.5541
Total	0.2264	2.5549	2.7642	4.2900e-003		0.1242	0.1242		0.1142	0.1142		431.1982	431.1982	0.1342		434.5541

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0117	8.4600e-003	0.0912	2.3000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.0900e-003		22.8651	22.8651	7.8000e-004		22.8846
Total	0.0117	8.4600e-003	0.0912	2.3000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.0900e-003		22.8651	22.8651	7.8000e-004		22.8846

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

3.3 Excavation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0785	0.8336	3.2028	4.2900e-003		0.0227	0.0227		0.0214	0.0214	0.0000	431.1982	431.1982	0.1342		434.5541
Total	0.0785	0.8336	3.2028	4.2900e-003		0.0227	0.0227		0.0214	0.0214	0.0000	431.1982	431.1982	0.1342		434.5541

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0117	8.4600e-003	0.0912	2.3000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.0900e-003		22.8651	22.8651	7.8000e-004		22.8846
Total	0.0117	8.4600e-003	0.0912	2.3000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.0900e-003		22.8651	22.8651	7.8000e-004		22.8846

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

3.4 Pad Construction & Equip Install - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0872	1.0027	0.7563	1.2300e-003		0.0409	0.0409		0.0382	0.0382		117.0534	117.0534	0.0331		117.8816
Total	0.0872	1.0027	0.7563	1.2300e-003		0.0409	0.0409		0.0382	0.0382		117.0534	117.0534	0.0331		117.8816

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.8600e-003	4.2300e-003	0.0456	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	8.0000e-005	3.0500e-003		11.4325	11.4325	3.9000e-004		11.4423
Total	5.8600e-003	4.2300e-003	0.0456	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	8.0000e-005	3.0500e-003		11.4325	11.4325	3.9000e-004		11.4423

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

3.4 Pad Construction & Equip Install - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0678	0.8677	0.6541	1.2300e-003		0.0342	0.0342		0.0314	0.0314	0.0000	117.0534	117.0534	0.0331		117.8816
Total	0.0678	0.8677	0.6541	1.2300e-003		0.0342	0.0342		0.0314	0.0314	0.0000	117.0534	117.0534	0.0331		117.8816

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.8600e-003	4.2300e-003	0.0456	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	8.0000e-005	3.0500e-003		11.4325	11.4325	3.9000e-004		11.4423
Total	5.8600e-003	4.2300e-003	0.0456	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	8.0000e-005	3.0500e-003		11.4325	11.4325	3.9000e-004		11.4423

4.0 Operational Detail - Mobile

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

LA RICS LMR Max Construction SCAQMD - South Coast Air Basin, Winter

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

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

Equipment Type	Number
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11.0 Vegetation

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**GREENHOUSE GAS EMISSIONS FROM
MAINTENANCE VEHICLES, GENERATOR TESTING,
AND HVAC UNIT OPERATION**

SCAQMD Site INDTW

Assumptions: monthly generator test, each site, one hour duration
 assume 14.7 miles for each leg of site visit, all trips retrace to origin point (double trip distances per site)
 biannual maintenance, occurs on same day as generator test (e.g. not extra trips)

Maintenance Vehicle Trip Emissions

	# Vehicle		NR Emissions			Total	Run	Total
	Non-Running ¹	Events per Month ²	(lbs/month)	Running ³	Running ⁴	Vehicle Miles	Emissions (lbs/month)	Emissions (lbs/day) ⁴
ROG	3.260551	2	0.014376421	3.577897	0.337325	29.4	0.037639464	0.0017101
NOx	0	2	0	0.581023	1.613247	29.4	0.107124838	0.0035219
CO	0	2	0	8.384708	5.611858	29.4	0.400703778	0.0131737
PM ₁₀	0	2	0	0.008852	0.886933	29.4	0.057525805	0.0018912
PM _{2.5}	0	2	0	0.008146	0.329402	29.4	0.021386187	0.0007031
SOx	0	2	0	0.002457	0.329402	29.4	0.021361103	0.0007023

1. IDLEX, DIURN, RESTL (grams/veh/day)
2. Multiple vehicles single event or single vehicle, multiple events.
3. STREX, HTSK, RUNL (grams/trip)
4. RUNEX (grams/mi)
5. Based on average 30.417 days per month

ROG	NOx	CO	PM ₁₀	PM _{2.5}
0.0017101	0.003522	0.01317368	0.0018912	0.000703

Generator Testing

SCAB Fleet Average Emission Factors (Diesel)

LMR Maintenance Emissions

Air Basin	SC
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Equipment	MaxHP	(lb/hr) ROG	(lb/hr) CO	(lb/hr) NOX	(lb/hr) SOX	(lb/hr) PM	(lb/hr) CO2	(lb/hr) CH4
Generator Sets	15	0.0123	0.0644	0.0852	0.0002	0.0043	10.2	0.0011
	25	0.0231	0.0788	0.1449	0.0002	0.0070	17.6	0.0021
	50	0.0491	0.2265	0.2357	0.0004	0.0138	30.6	0.0044
	120	0.0642	0.4694	0.5181	0.0009	0.0333	77.9	0.0058
	175	0.0808	0.7324	0.7528	0.0016	0.0337	142	0.0073
	250	0.0857	0.3931	0.9756	0.0024	0.0274	213	0.0077
	500	0.1264	0.6113	1.3836	0.0033	0.0415	337	0.0114
	750	0.2080	0.9868	2.2918	0.0055	0.0679	544	0.0188
9999	0.5230	2.0948	7.5356	0.0105	0.1778	1,049	0.0472	

125 kW = 162.6278 BHP

Source: SCAQMD CEQA Handbook (SCAQMD, Revised March 2015) Off-Road Model Mobile Source Emission Factors
 (<http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/off-road-mobile-source-emission-factors>)

ROG	0.002656409 lbs/day
NOx	0.024749318 lbs/day
CO	0.02407864 lbs/day
PM ₁₀	0.001107933 lbs/day
PM _{2.5}	0.001107933 lbs/day

ROG	NOx	CO	PM ₁₀	PM _{2.5}
0.002656409	0.024749	0.02407864	0.0011079	0.0011079

SCAQMD **Site INDTW**

Assumptions: monthly generator test, each site, one hour duration
 assume 14.7 miles for each leg of site visit, all trips retrace to origin point (double trip distances per site)
 biannual maintenance, occurs on same day as generator test (e.g. not extra trips)

Maintenance Vehicle Trip Emissions

	# Vehicle Events per		NR Emissions	Running ³	Running ⁴	Total Monthly Vehicle Miles	Run Emissions (lbs/month)	Total Emissions (lbs/day) ⁴	Metric Tons/day	Annual Metric Tons
CO ₂	Non-Running ¹	Month ²	(lbs/month)							
	0	2	0	230.9936	2134.835	29.4	139.388327	4.5825797	0.002079	0.5425207

1. IDLEX, DIURN, RESTL (grams/veh/day)
2. Multiple vehicles single event or single vehicle, multiple events.
3. STREX, HTSK, RUNL (grams/trip)
4. RUNEX (grams/mi)
5. Based on average 30.417 days per month

Generator Testing

SCAB Fleet Average Emission Factors (Diesel)

GHG Emissions

Air Basin	SC
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Equipment	MaxHP	(lb/hr) ROG	(lb/hr) CO	(lb/hr) NOX	(lb/hr) SOX	(lb/hr) PM	(lb/hr) CO2	(lb/hr) CH4
Generator Sets	15	0.0123	0.0644	0.0852	0.0002	0.0043	10.2	0.0011
	25	0.0231	0.0788	0.1449	0.0002	0.0070	17.6	0.0021
	50	0.0491	0.2265	0.2357	0.0004	0.0138	30.6	0.0044
	120	0.0642	0.4694	0.5181	0.0009	0.0333	77.9	0.0058
	175	0.0808	0.7324	0.7528	0.0016	0.0337	142	0.0073
	250	0.0857	0.3931	0.9756	0.0024	0.0274	213	0.0077
	500	0.1264	0.6113	1.3836	0.0033	0.0415	337	0.0114
	750	0.2080	0.9868	2.2918	0.0055	0.0679	544	0.0188
	9999	0.5230	2.0948	7.5356	0.0105	0.1778	1,049	0.0472

125 kW = 162.6278 BHP

Source: SCAQMD CEQA Handbook (SCAQMD, Revised March 2015) Off-Road Model Mobile Source Emission Factors (<http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/off-road-mobile-source-emission-factors>)

CO ₂	4.66844199 lbs/day	https://climatechangeconnection.org/emissions/co2-equivalents/
CH ₄	0.000239997 lbs/day	(25 times CO ₂ emissions per unit CH ₄ emissions)
	Total	4.674 lbs/day
	Metric Tons/day	0.002120291
	Annual Metric Tons	0.55339604

SCAQMD Representative LMR Site

Construction

CO ₂ e ¹	762.3317 lbs/day
	0.345787865 Metric Tons/Day
	3.0083544 Annual Metric Tons ²

1. CalEEMod Emissions for Representative LMR Site
2. Amortized over 30 year life of facility

SCAQMD Representative LMR Site

Operational

Indirect (Electricity Generation)

Elec Consumption 12,500 watts

CO ₂	1227.89 lb/MWh ¹
	63% fossil fuel power generation for LADWP ²
	9.66963375 lb/site
	84705.99165 lbs/year
	38.42199405 Annual Metric Tons

1. CO₂ intensity for LA Department of Water and Power (CalEEMod)
2. LADWP, <http://www.greentechmedia.com/articles/read/ladwp-looks-at-33-percent-renewables-by-2020> (accessed 4/5/15)

TOTAL Emissions: 42.53 Construction and Operational GHG emissions

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