

## Chapter 13

# Growth Inducement and Related Impacts

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### Introduction

This chapter analyzes the Project’s potential to induce growth, consistent with requirements of CEQA and NEPA.

A project’s potential to foster growth falls within the scope of CEQA and NEPA analysis because of the ways an increasing population and expanding urban/suburban growth boundary can affect the natural and built environments. Expansion of the developed footprint can reduce the habitat available for wildlife, contribute to water quality impairment due to increased urban runoff, and permanently alter a region’s visual character, while a growing population increases the need for public services such as schools, fire, and police protection, elevates water consumption and energy use, and adds traffic to area roadways. Additional traffic in turn increases pollutant and greenhouse gas (GHG) emissions and noise generation, and may eventually degrade roadway function as reflected in traffic flow, intersection queuing and travel times, and driver stress levels. At the broader scale, population growth ultimately shifts regional patterns of land use as open space or agricultural lands give way to expanding urban and suburban uses.

### CEQA and NEPA Requirements

The CEQA statute (§21100 [b][5]) and *CEQA Guidelines* (§15126[d]) specifically include an analysis of a proposed project’s growth-inducing impacts among the required contents of an EIR, although the *Guidelines* (§15126[d]) caution that growth cannot be assumed to be “necessarily beneficial, detrimental, or of little significance.” *Guidelines* §15126.2[d] further explains that analysis of growth inducement should consider both the

- project’s potential to foster economic or population growth or the construction of additional housing, either directly or indirectly
- project’s individual and cumulative potential to encourage or facilitate other undertakings that could result in significant environmental effects

Under CEQA, a project may also be considered growth inducing if it removes an existing obstacle to growth, such as insufficient transportation or water supply infrastructure (*Guidelines* §15126.2[d]).

The NEPA statute does not explicitly require analysis of growth-inducing potential. However, CEQ’s NEPA implementing regulations (§1508.8[b]) include “growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects” in the NEPA definition of *indirect effects*. This places growth inducement and its outcomes within the required scope of NEPA analysis.

### Project’s Potential to Induce Growth

As Chapter 2 discusses, this Project is proposed to improve the reliability of the wastewater system serving existing levels of development; it would rehabilitate and provide for improved maintenance of a critical

component of the City's wastewater conveyance system. More specifically, the Project would realign a segment of OTS so that it is outside of sensitive habitat; rehabilitate a total of 50 aging and degraded manholes along OTS to better control I&I; remove a siphon and several manholes that are no longer necessary; and provide the City with long-term access for maintenance of this important mainstem wastewater facility. The Project would not directly construct housing, relocate populations, or lead to economic growth and thus would have **no impact relative to these aspects of growth inducement**.

The Project would upsize approximately 2,800 linear feet of the OTS upstream of El Camino del Norte, consistent with the increased service need projected at build-out under the City's current approved General Plan (City of Encinitas 1989). This improvement is considered to represent removal of an existing obstacle to growth (i.e., the currently limited capacity of this segment of OTS), and **the Project is considered growth-inducing in this regard**. However, future development undertakings to realize that growth could take a number of forms; although the number of units is generally known at this time, the specifics of individual projects are outside the envelope of what is reasonably foreseeable at present, and any discussion of their potential effects in this Draft EIR/EA would therefore be speculative. However, any such future projects would require separate discretionary approval, and thus would undergo CEQA review when they are brought forward.

Similarly, improvements made under the proposed Project would remain in service for several decades, and thus could potentially serve increased area populations in future areas of development or densification not currently envisioned in City planning documents. The nature and effects of such projects are also outside the bounds of what is now reasonably foreseeable, but such projects would also trigger separate discretionary approval and CEQA review when they are proposed. **No further analysis of issues related to growth inducement is feasible at this time.**

## Reference Used in Preparing this Chapter

City of Encinitas. 1989. City of Encinitas General Plan. Available:  
<http://archive.ci.encinitas.ca.us/weblink8/browse.aspx?startid=665622>. Accessed January 2015.

## Chapter 14

# Environmental Sustainability

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### Introduction

NEPA and its implementing regulations require lead agencies to consider a range of issues related to environmental sustainability and the use of natural resources in deciding whether and how to proceed with a proposed undertaking. The CEQA statute and guidelines require a similar analysis in some EIRs. The requirements differ slightly at the state and federal levels, but the spirit of the two statutes and their implementing regulations is similar: lead agencies must consider the short- and long-term implications of a project's use of natural resources, as well as the project's potential to result in significant and irreversible changes in the environment. This chapter addresses the requirement to consider the proposed Project's environmental sustainability-related impacts, beginning with an overview of the legal requirements for analysis.

### NEPA and CEQA Requirements

The NEPA statute (42 USC §4332[C][iv–v]) requires lead agencies to include two aspects of environmental sustainability in the environmental analysis conducted to support federal decision making:

- the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity
- irreversible and irretrievable commitments of resources that would result if the proposed undertaking is implemented

The federal Council on Environmental Quality's (CEQ's) NEPA implementing regulations (§1502.16) amplify this requirement to include analysis of

- the energy requirements and energy conservation potential of the proposed undertaking and alternatives
- the use of natural resources, including nonrenewable resources, required to construct and operate the proposed undertaking and alternatives, and the potential for resource conservation associated with each

For projects that must undergo CEQA review, and are also subject to NEPA analysis, regardless of whether the analysis is completed separately, or in a combined "joint" environmental document, the CEQA statute (§21100.1[b][2][b]) and *CEQA Guidelines* (§15126[c]) require an EIR to discuss the significant irreversible environmental changes that would result from project approval. As explained in the *Guidelines* (§15126[c]), such changes may include direct effects, such as the need for nonrenewable resources to construct and operate the project, and the potential for direct environmental damage due to accidents during project construction or operation. Irreversible environmental changes may also include secondary or indirect outcomes (e.g., the wide range of impacts that may occur when transportation infrastructure is extended to provide access to a previously remote area) and both primary and secondary impacts resulting in irreversible environmental changes commonly "commit[s] future generations to similar uses." In this context, the

*Guidelines* caution that irretrievable commitments of resources should be scrutinized to provide assurance that the anticipated consumption is justified (§15126.2[c]).

## Analysis of Sustainability-Related Impacts

### Use of Natural Resources and Energy

Under the proposed Project, a variety of natural resources would be required to install the new access improvements, relocate the Lone Jack segment of the existing OTS, and rehabilitate the aging and degraded manholes along the Project reach. Included would be renewable resources (e.g., wood, the felt used as a component in manhole linings, and to some extent the recycled components used in some green surface treatments). Dedicated resources would largely be nonrenewable, such as aggregate base, concrete, steel, silica used in producing fiberglass for manhole linings, and the petroleum resources used in paving media (for the Lone Jack realignment) and construction plastics. There would also be a fairly minor loss or consumption of habitat resources to accommodate the footprint for the new access route. In addition, water would be used directly in Project construction, and would also be required to propagate and maintain the plant materials used in revegetation, and in irrigation during the revegetation establishment period. Finally, energy resources would be required for construction, reflecting both the direct consumption of energy in construction (in particular, the fossil fuels used to power construction equipment and worker commute vehicles) and the indirect use of the energy consumed for production, transport, and marketing of construction materials. The use of materials and energy for Project construction would represent an irretrievable one-time commitment of resources.

Once installed, the proposed improvements are expected to remain in place for decades: 10 to 25 years for new manhole liners, up to 25 years with no major overhaul for the new access, and 50 years for the new sewer pipeline in Lone Jack Road. During these lifespans, Project components should require little maintenance to remain fully serviceable, although small amounts of various construction materials (again representing largely nonrenewable resources) and energy resources could be required for upkeep of the access route in particular. The new access route would slightly increase the consumption of fossil fuel resources and water associated with operation and maintenance of the City's wastewater system, since it would enable the City to reach portions of OTS that are currently inaccessible, and would therefore increase the overall level of operations and maintenance activity somewhat.

However, by enabling proper cleaning, inspection, and maintenance of the entire downstream reach of OTS, the Project would greatly reduce the potential for overflows and spills. Project improvements would not only avoid the potential for substantially detrimental (and potentially long-term if not irrecoverable) effects on water quality and ecological function in Escondido Creek and San Elijo Lagoon, but also avoid the potential use of resources required for cleanup and restoration activities. Maintaining the segment of OTS downstream of El Camino del Norte in its current location would also offer the benefit of avoiding the ongoing energy consumption required to operate multiple sewer pump stations (see discussion in Chapter 2).

The use of renewable, nonrenewable, and energy resources during construction of the 2 action alternatives (1, 2a, and 2b) would be generally similar to that anticipated under the proposed Project, although the relative amounts of various materials required could vary somewhat between alternatives, due to the differences in linear footage of the various improvement levels necessitated by alternate routing. In particular, Alternative 2b would have the potential for increased use of materials and increased energy

consumption by comparison since it would require more extensive construction of Level 5 improvements. However, the differences would be comparatively small since differences in overall linear footage would be limited.

Over the longer term, the use of materials and energy for Project operation would also be very similar under the action alternatives to that described for the proposed Project, and both Alternatives would offer the same benefit of avoiding the ongoing energy consumption required to operate multiple sewer pump stations. As identified for the proposed Project, improvements under Alternatives 1 and 2 are expected to remain in place for decades (10 to 25 years for new manhole liners, up to 25 years with no major overhaul for the new access, and 50 years for the new sewer pipeline in Lone Jack Road), with minor intermittent use of material and energy resources required for upkeep, and a slight increase in consumption of fossil fuel resources and water associated with the City's improved ability to access and actively maintain the project reach of OTS. As identified for the proposed Project, all of the action alternatives would also enable proper cleaning, inspection, and maintenance of the entire downstream reach of OTS, and thus would greatly reduce the potential for overflows and spills, and concomitant environmental damage, as well as consumption of resources required for cleanup and restoration activities.

Under the No Project/No Action Alternative, there would be no up-front commitment of material or energy resources, since no access would be constructed, the Lone Jack segment of the OTS would remain in its current location in the Escondido Creek Corridor, and no immediate manhole rehabilitation would occur. Long-term operations and maintenance-related use of resources and energy could also be slightly reduced by comparison with the proposed Project and action alternatives; although individual manholes would likely be rehabilitated on an individual basis as their condition becomes critical, there would be no need to maintain a new access route, and the City would not be able to expand its cleaning, inspection, and maintenance of the downstream reach of the OTS. However, because the City's ability to maintain this portion of the OTS would continue to be limited or nonexistent, the No Project/No Action Alternative would also carry an increased risk of overflows and spills, both in and upstream of the Lagoon, with an accompanying risk of environmental damage, and a potential use of resources and energy for cleanup and restoration activities.

### **Balance between Short- and Long-Term Uses of the Environment**

As described in the preceding section, the proposed Project and action alternatives would all require an up-front investment of material and energy resources to install the new access improvements, relocate the Lone Jack segment of the existing OTS, and rehabilitate a number of aging and degraded manholes. The proposed Project and action alternatives would also entail an ongoing commitment to the consumption of small increments of material resources and energy potentially needed for upkeep of the new access, and would slightly increase the use of water and fossil fuels for cleaning and inspection of the project reach of OTS. However, all of the action approaches would markedly improve the City's ability to maintain this important wastewater facility, decreasing the potential for spills and avoiding the associated environmental damage as well as the use of materials and energy potentially needed for cleanup. **This approach represents an investment of both energy and resources to avoid long-term damaging outcomes.**

By contrast, the No Project/No Action Alternative would **avoid both the up-front investment of materials and energy, and the small ongoing increase in operational resource usage** associated with the proposed Project and action alternatives. However, it would perpetuate the current inability to provide thorough cleaning, inspection, and maintenance for the OTS downstream of El Camino del Norte, and **would substantially increase long-term risks of impaired service and environmental damage, as well as the expenditure of materials and energy required for recovery.**



## Chapter 15

# Cumulative Impacts

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### Introduction

Both CEQA and NEPA require lead agencies to evaluate the impacts of each proposed undertaking in a larger context that includes the combined effects of other projects that may affect the same area or the same resources. If a project would involve repeated activities over time, the combined effect of these activities must also be analyzed. Together, these two types of combined effects are referred to as *cumulative impacts* or *cumulative effects*. This chapter analyzes the proposed Project's potential to create and contribute to cumulative impacts, beginning with a brief overview of legal requirements.

### CEQA and NEPA Requirements

Section 15355 of the *CEQA Guidelines* defines *cumulative impacts* as including two categories of effects:

- impacts that reflect the combined outcome of repeated similar activities over a period of time
- impacts that reflect the combined outcome of more than one project

Cumulative impacts resulting from the combined effect of several projects are understood as the environmental change that results from the incremental impact of the project under analysis, added to the impacts of other past, present, and reasonably foreseeable future projects (*CEQA Guidelines* §15355). Under CEQA, this type of cumulative impact must be analyzed and disclosed when (1) the overall impact is significant, *and* (2) the proposed undertaking would make a contribution that is "considerable" in the context of the larger impact (*CEQA Guidelines* §15130).

The NEPA statute and the Council on Environmental Quality's (CEQ's) NEPA implementing regulations provide very little specific guidance regarding the analysis of cumulative impacts, although the CEQ implementing regulations offer an explicit definition of *cumulative impacts* that is very similar to the one used under CEQA: "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR 1508.7). The same section of the CEQ implementing regulations also points out that cumulative impacts can result from activities that are individually minor but collectively significant. Additional guidance and how-to's are provided in CEQ's handbook *Considering Cumulative Impacts under the National Environmental Policy Act* (Council on Environmental Quality 1997), and internal follow-up documentation promulgated by EPA (1999).

Critical to understanding the federal perspective on cumulative impacts analysis are CEQ's "eight principles" (Council on Environmental Quality 1997), which include the following guidance particularly relevant to the proposed Project.

- Cumulative effects need to be analyzed in the context of the specific resource, ecosystem, and human community being affected
- Identification of cumulative impacts should focus on those that are truly meaningful

- Cumulative effects on a given resource, ecosystem, and human community are rarely aligned with political or administrative boundaries
- Cumulative impacts may result from the accumulation of similar effects or the synergistic interaction of different effects
- Cumulative effects may last for many years beyond the life of the action that caused the effects

## Methods Used in this Analysis

The methods used to identify the proposed Project's potential to create and contribute to cumulative impacts were designed to meet the requirements of the CEQA statute and *Guidelines* while also achieving consistency with CEQ's (1997) cumulative impacts guidance. For simplicity, the analysis uses CEQA language.

Cumulative impacts analysis began by identifying appropriate geographic boundaries in consideration of general types of impacts each resource is subject to. Boundaries were delineated on a resource-specific basis, emphasizing "natural" and logical division, consistent with CEQ guidance; the goal was to make sure analysis emphasized meaningful effects without understating or omitting lesser but still potentially significant outcomes. Analysis then considered the following.

- **Potential to contribute to existing significant cumulative impacts** – Evaluation of the Project's potential to contribute to existing cumulative impacts entailed the following steps
  - (1) Identify resources subject to a significant existing cumulative impact within the identified study area. This evaluation was limited to the resource topics covered in this Draft EIR/EA (i.e., those potentially impacted by the proposed Project and alternatives). Resources for which no existing significant cumulative impact was identified were eliminated from further analysis
  - (2) For resources with identified significant cumulative impacts, determine whether Project and alternatives would contribute, and evaluate magnitude/intensity and significance of Project's contribution

Analysis considered both the short-term (construction-period) and long-term (operational) potential for cumulative contributions. In general, analysis was conducted in the context of SANDAG's regional planning, which projects regional growth of more than 1 million people by 2050 (SANDAG 2016). The current adopted County General Plan anticipates that this will translate to more than 230,000 new homes, with targeted growth in the western portions of the unincorporated County (County of San Diego 2011). Evaluation of short-term/construction-related contributions also considered the Project's contribution in the context of other large projects planned for implementation in the Creek/Lagoon Corridor or vicinity over the next few years, as follows.

- North Coast Corridor Program – Administered by SANDAG in collaboration with NCTD, FTA, and Caltrans, this program would include expansion of I-5 to add 2 express lanes between La Jolla and Oceanside and double-tracking of the 60-mile San Diego segment of the LOSSAN railroad (including replacement of the San Elijo Lagoon rail bridge and addition of 1.5 miles of second track at the lagoon). Construction on the I-5 and coastal rail projects between the San Elijo and Batiquitos Lagoon are anticipated to begin in 2016 (SANDAG 2016, 2015)
- San Elijo Lagoon Restoration Project – Led by the Conservancy, the restoration project aims to restore full tidal exchange to San Elijo Lagoon, improving long-term habitat quality and function and bringing the Lagoon closer to its pre-development condition. This would

involve grading/dredging to reconfigure elevations within the Lagoon as well as modifications to the ocean inlet and lagoon channels. The Draft EIR was circulated in 2014, with construction originally anticipated to take place from 2015 to 2018 (San Elijo Lagoon Conservancy 2014)

- **Potential to create cumulative impacts through repeated similar activities** – Evaluation of the Project’s potential to independently create cumulative impacts as a result of repeated activities over time addressed the resources for which a significant cumulative impact is not currently identified as existing. Because construction would be temporary and short-term, analysis focused on the nature and scope of the expanded maintenance activities that would be enabled by improving access to the OTS downstream of El Camino del Norte

Consistent with CEQ guidance, all 3 aspects of cumulative impacts analysis considered the potential for additive, countervailing (opposing), and synergistic effects over the longer term (“beyond the life of the action”). Analysis also examined both beneficial and detrimental potential.

## Geographic Scope of Cumulative Impacts Analysis

Table 15-1 identifies and discusses the geographic boundaries used in cumulative impacts analysis for each resource topic.

**Table 15-1: Geographic Boundaries for Analysis of Project Contribution to Existing Cumulative Impacts**

Resource	Area of Analysis	Rationale
Aesthetics	City of Encinitas and surrounding North County area	Aesthetic values are regulated at the local jurisdiction (City, or, for unincorporated areas, County) level and can therefore vary substantially between adjacent communities. As a result, aesthetic character and quality in areas near a boundary between jurisdictions is an inherently cumulative condition; on either side of the line, aesthetics are influenced by conditions in the neighboring jurisdiction(s).
Air Quality and Greenhouse Gas Emissions	San Diego Air Basin and adjacent areas to east and south	California’s 15 air basins are defined based on a combination of geographic, meteorological, and political criteria (California Air Resources Board 2012, California Air Resources Board n.d.). In general, the intent is that air basin boundaries should make sense in terms of regional geography and air circulation patterns; the fundamental criteria for basin delineation are geographic. At the same time, since pollutant emissions are regulated locally, basin boundaries must reflect political boundaries and ideally should also encompass both the emitter and receptor areas for important sources of criteria pollutant emissions.  Prevailing winds in coastal southern California are westerly for much of the year. The San Diego Air Basin’s boundaries coincide with the boundaries of the County of San Diego, extending southward to the international border with Mexico. To the east lies the Salton Sea Air Basin. Inland San Diego County, together with the Salton Sea Air Basin, and portions of northern Baja California del Norte, comprise the downwind area potentially affected by pollutants generated in coastal San Diego County.  Because pollutants disperse with distance from the source, individual projects that have comparatively short durations and limited emissions are unlikely to materially impact pollutant levels in locations substantially removed from the project site. However, even a small increase in pollutant levels can represent a cumulative

Resource	Area of Analysis	Rationale
Biological Resources, Jurisdictional Habitat	Coastal southern California	<p>concern. Accordingly, to ensure a thorough assessment, the geographic area for analysis of cumulative impacts related to criteria pollutants was defined expansively, to include not only the San Diego Air Basin but also adjacent regions in a generally downwind direction. Analysis of cumulative impacts related to GHG emissions considered emissions within the general Project vicinity as a general baseline, within the larger context of a globalized impact.</p> <p>The location, nature, and extent of biological and jurisdictional habitat resources are controlled by physiography and climate, with a secondary overprint resulting from human influences via patterns of land development. As a result, habitats and patterns of species usage in the Project vicinity are interconnected with a larger mosaic in San Diego County and beyond; for a comprehensive evaluation, analysis considered the Project in the context of greater coastal southern California</p>
Cultural and Paleontological Resources	San Diego County and coastal southern California in general	<p>The presence or absence of cultural resources is independent of current political boundaries, instead reflecting past patterns of land usage combined with complex patterns of resource preservation and loss. The same is broadly true for paleontological resources. For a more comprehensive and conservative analysis, cumulative impacts were therefore addressed in the context of greater San Diego County and coastal southern California rather than focusing exclusively on the Project's immediate vicinity.</p> <p>Like cultural resources, paleontological resources are fundamentally independent of political boundaries; as with cultural resources, analysis of cumulative impacts on paleontological resources considered the greater San Diego County/coastal Southern California region. Analysis also considered cumulative losses specific to the paleontologically sensitive geologic units that could be affected by the Project: the Delmar Formation of Eocene age, and alluvial deposits of late Pleistocene age.</p>
Environmental Justice	City of Encinitas; northern San Diego County	<p>EPA guidance promulgated by CEQ (1997) emphasizes the importance of focusing on smaller areas or communities to make sure disproportionate impacts on minority or low-income populations are not "diluted" or disguised by population demographics in the larger region. For this reason, analysis of potential cumulative impacts with regard to Environmental Justice concentrated first on the immediate project area and surrounding City of Encinitas, and then placed these potential impacts in the larger North County context.</p>
Hazards and Hazardous Materials	City of Encinitas and surrounding North County area	<p>Hazardous materials contamination reflects past and current patterns of land use, as well as topographic, climatic, hydrologic, and soils-related factors. The Project would use fairly limited quantities of materials that qualify as hazardous under California and federal law, and thus would be extremely unlikely to contribute to impacts outside the immediate Project vicinity. For a comprehensive assessment, however, analysis considered hazardous materials in all parts of the City and in adjacent jurisdictions.</p>
Hydrology and Water Quality	Escondido Creek/San Elijo Lagoon watershed, southern California coastline at and south of Project vicinity; San Elijo groundwater basin	<p>The Project is located within the Escondido Creek/San Elijo Lagoon watershed. Potential cumulative impacts on surface drainage function and surface water quality would be limited to those water bodies and downstream receiving waters (the Pacific Ocean at and south of San Elijo Lagoon). Similarly, the Project alignment overlies the San Elijo groundwater basin; the Project's potential to create or contribute to impacts on groundwater would be limited to that basin and downstream receiving waters along the Coast.</p>

Resource	Area of Analysis	Rationale
Noise	City of Encinitas and surrounding North County area	Noise generation is regulated at the local jurisdiction level. As a result, the noise environment in areas near a boundary between jurisdictions may be influenced by land uses and noise regulation practices in the neighboring jurisdiction, and noise generated in one jurisdiction may contribute to the environment in surrounding areas outside the jurisdiction.
Transportation	City of Encinitas and surrounding North County area	Arterial transportation routes are a shared resource linking neighboring jurisdictions, and because haul and worker travel routes are often regional in extent, the impacts of a local project can be felt outside the immediate area. Consequently, evaluation of cumulative impacts with regard to transportation concentrated on the City and the adjacent areas.
Utilities	City of Encinitas and northern San Diego County	The only utility materially affected by the proposed Project would be sanitary sewer service, which is provided by the City, for a service area limited to the City and limited adjacent areas (see discussion in Chapter 11). The Project is proposed to serve existing and planned growth regulated through the City's approved General Plan and step-down planning documents; it therefore would independently increase, decrease, or relocate populations and thus would not contribute to impacts on regional utility resources that are shared over a broader area, such as wastewater treatment. In view of these two factors, evaluation of cumulative impacts with regard to utilities concentrated on the City and the adjacent areas that are also served by City sanitary sewer infrastructure.

## Proposed Project

### Potential to Contribute to Existing Significant Cumulative Impacts

Table 15-2 presents the results of screening to identify the resources for which a significant cumulative impact (or impacts) exist, and for which a detailed analysis of the proposed Project's potential contribution is therefore warranted. It also identifies the resources for which no significant cumulative impact exists and detailed analysis is not warranted. Similarly, even if there is an identified cumulative impact on a resource, if the proposed Project would have no impact on that resource, there is no potential that it would contribute to the cumulative impact, and no further analysis is needed.

The geographic boundaries (analysis area) used in this evaluation are identified on a resource-by-resource basis in Table 15-1 above.

**Table 15-2: Screening Overview of Cumulative Impacts in Project Area**

Resource	Significant Existing Cumulative Impact?	Project's Potential to Contribute	Detailed Analysis Warranted?
Aesthetics	None identified Aesthetics in the City and surrounding portions of northern San Diego County continue to evolve as a result of development (representing a mixture of infill, redevelopment, and limited new growth), but aesthetic quality is highly valued in this area, and visual character and quality are controlled and preserved through adopted planning documents	Project-level (incremental) impacts are discussed in detail in Chapter 6.	Since no significant regional impact is identified, no further analysis of this topic is warranted at the cumulative level.

Resource	Significant Existing Cumulative Impact?	Project’s Potential to Contribute	Detailed Analysis Warranted?
Air Quality and GHG Emissions	<p>(e.g., General Plans, Specific/Area Plans, etc.), policies, and ordinances in each jurisdiction. With these protections in place, no significant adverse cumulative impact on aesthetics has been identified for the analysis area.</p> <p><b>Yes</b></p> <p>The San Diego Air Basin (SDAB), which includes the District’s service area and the Project alignment, is in non-attainment of state and federal standards for ozone/ozone precursors. This represents a significant cumulative impact on air quality. The SDAB is also in non-attainment of the state standard for fine respirable particulate matter. This represents an additional significant cumulative impact on air quality.</p> <p>Greenhouse gas emissions are generated from a variety of natural and anthropogenic sources, including industry, transportation, electricity production, commercial and residential uses, and agriculture. A growing scientific and regulatory consensus recognizes greenhouse gas emissions as a cumulative, long-term concern at the local, national, and worldwide scales. This also represents a significant cumulative impact.</p>	<p>As discussed in Chapter 9, construction of the proposed Project would result in temporary increase in emissions of criteria pollutants.</p> <p>Expanded operations and maintenance activities would also result in a slight long-term increase in criteria pollutant emissions.</p>	Yes
Biological Resources, Jurisdictional Habitat	<p><b>Yes</b></p> <p>Coastal San Diego County has experienced substantial loss and degradation of natural habitats over the past 2 centuries. This represents a significant cumulative impact at the landscape or habitat level. At the species level, additional significant cumulative impacts are considered to exist where individual plant and wildlife species have been identified as qualifying for federal or state special status.</p>	<p>As discussed in Chapter 4, the Project would entail activities within sensitive habitat occupied by a number of protected species. It would result in loss of some habitat to create the new access, and would have the potential to disturb nesting protected birds.</p>	Yes
Cultural and Paleontological Resources	<p><b>Yes</b></p> <p>Over the past 200 years, agricultural growth and urban expansion have substantially modified the Native American cultural legacy in San Diego County and throughout California, including culturally important sites, culturally important plant and wildlife resources, and traditional cultural practices.</p>	<p>As discussed in Chapter 5, ground-disturbing activities during Project construction could result in disturbance or loss of archaeological resources.</p>	<p>Short-term: <b>Yes</b>, since construction would entail ground disturbance.</p> <p>Long-term: <b>No</b>, since ongoing maintenance and operations would not entail ground disturbance.</p>

Resource	Significant Existing Cumulative Impact?	Project’s Potential to Contribute	Detailed Analysis Warranted?
Environmental Justice	<p><b>None identified</b></p> <p>As Chapter 12 discusses, neither the immediate Project vicinity (Census Tracts 171.06, 171.10, and 174.04) nor the larger North County area qualifies as an area of minority or low-income population per EPA guidelines.</p> <p>No existing significant cumulative impact with regard to environmental justice has been identified in this part of San Diego County.</p>	Project-level (incremental) impacts are discussed in detail in Chapter 12.	Since no significant regional impact is identified, no further analysis of this topic is warranted at the cumulative level.
Hazards and Hazardous Materials	<p><b>None identified</b></p> <p>As discussed in Chapter 10, there are no known regional contaminant plumes within the City and the only known contaminated sites within 1 mile of the Project alignment were subject to limited, localized contamination that has been remediated consistent with all applicable regulatory standards. No existing significant cumulative impact with regard to hazardous materials contamination is known to exist in this part of San Diego County</p>	Project-level (incremental) impacts are discussed in detail in Chapter 10.	Since no significant regional impact is identified, no further analysis of this topic is warranted at the cumulative level.
Hydrology and Water Quality	<p><b>Yes</b></p> <p>A number of streams, lakes, reservoirs, and ocean/bay waters in the San Diego area are included on the State Water Resources Control Board’s current list of water quality–impaired water bodies (see discussion in Chapter 3). Region-wide, this represents a significant cumulative impact on water quality.</p>	As discussed in Chapter 3, Project construction and operation would have some potential for impacts on water quality in San Elijo Lagoon and Escondido Creek, both of which are identified as water quality–impaired.	<b>Yes</b>
Noise	<p><b>None identified</b></p> <p>Noise within the City and neighboring jurisdictions is regulated through adopted planning documents (e.g., General Plans, Specific/Area Plans, etc.), policies, and ordinances in each jurisdiction. With these protections in place, no significant adverse cumulative impact related to noise is identified.</p>	Project-level (incremental) impacts are discussed in detail in Chapter 8.	Since no significant regional impact is identified, no further analysis of this topic is warranted at the cumulative level.
Traffic and Transportation	<p><b>Yes</b></p> <p>As discussed in Chapter 7, several roadways in the Project vicinity, including ones that offer primary arterial access to the Project alignment, operate at unacceptable LOS at least intermittently. This represents a significant existing cumulative impact on transportation system function.</p>	<p>Construction would add heavy trucks and other vehicles to area roadways and intersections, including several that are currently operating at an unacceptable LOS.</p> <p>Traffic from operations would be on the order of 1 to 2 additional trips per year.</p>	<p>Short-term: <b>Yes</b></p> <p>Long term: The projected increase in traffic as a result of expanded operations is so small that it would have no potential to significantly alter roadway or intersection function over the long term; no further analysis is warranted.</p>

Resource	Significant Existing Cumulative Impact?	Project’s Potential to Contribute	Detailed Analysis Warranted?
Utilities	None identified No existing significant cumulative impacts with respect to potable water, recycled water, wastewater, stormwater, electricity, or waste management capacity or facilities have been identified in the area served by the OTS.	Project-level (incremental) impacts are discussed in detail in Chapter 11.	Since no significant regional cumulative impact is identified, and the project would moreover offer a long-term benefit for sanitary sewer system function and reliability, no further analysis of this topic is warranted at the cumulative level.

The following sections discuss the potential to contribute to the cumulative impacts identified in Table 15-2 as warranting analysis. The proposed Project’s potential contributions are discussed first, followed by those of the alternatives.

### Air Quality and Greenhouse Gas Emissions

As identified in Table 15-2, the SDAB is in non-attainment of state and federal standards for ozone/ozone precursors, which include oxides of nitrogen and VOCs. The SDAB is also in non-attainment of the state particulate matter standard. Exceedance of these standards represents a significant cumulative impact on air quality. Additionally, a growing scientific and regulatory consensus recognizes greenhouse gas emissions as a cumulative, long-term concern at the local, national, and worldwide scales, representing an additional related significant cumulative impact.

#### Short-Term (Construction Period) Contributions

##### Criteria Pollutants

Project construction would generate ozone precursors and fugitive dust, and as described in the *Environmental Commitments* section in Chapter 2, the Project would incorporate extensive measures to control dust and reduce tailpipe emissions and emissions of VOCs. Daily maximum emissions with these measures in place are summarized in Table 15-3 below, along with the corresponding thresholds used to screen for potentially significant impacts at the project level (see Chapter 9).

**Table 15-3: Overview of Construction-Related Pollutant Emissions – Proposed Project**

Criteria Pollutant Emissions		
Pollutant	Emissions (Pounds/Day)	Screening Threshold (Pounds/Day)
Carbon monoxide (CO)	52.3	550
Nitrogen oxides (NO <sub>x</sub> )	96.3	250
Fugitive dust		
Fine particulate matter (PM2.5)	10.8	55
Respirable particulate matter (PM10)	46.8	100
Sulfur oxides (SO <sub>x</sub> )	0.18	250
Volatile organic compounds (VOC)	11.7	75

Source: ZMassociates 2014 (Appendix F of this Draft EIR/EA)

As Table 15-3 shows, fugitive dust, tailpipe emissions, and VOCs would all be controlled at levels well below the applicable significance standard; evaluated at the incremental (project-specific) level, Project

construction would have no potential to result in violation of applicable air quality standards, as discussed in Chapter 9.

Considered in the larger context, construction dust and tailpipe emissions could raise concern if they were significantly protracted. However, construction would be both temporary and fairly short-term, with a total anticipated duration of about 14 months overall and the majority of work on a reach-by-reach basis completed much more rapidly. In view of the temporary and short-term nature of the work, the Project’s potential to contribute to existing non-attainment of dust and ozone/ozone precursor standards would be very limited and is evaluated as less than cumulatively considerable.

Greenhouse Gases

As explained in Chapter 9, the City has adopted the **900 metric tons/year of greenhouse gas and precursor emissions** threshold recommended by the California Air Pollution Control Officers Association (CAPCOA) (CAPCOA 2008) as the level at which greenhouse gas emissions represent a potentially significant impact—that is, a considerable contribution to the cumulative impact represented by overall elevated GHG levels, warranting further analysis. This threshold is roughly equivalent to the emissions associated with occupancy of 50 single family residential units or 30,000 square feet of office uses. The County currently considers projects that generate less than 900 metric tons/year (992 US tons/year) of greenhouse gas and precursor emissions (CO<sub>2</sub>-equivalents, or CO<sub>2</sub>e) as resulting in a less than cumulatively considerable contribution to greenhouse gas levels. The City has adopted the 900 metric tons/year (992 US tons/year) threshold, which represents a widely used standard, for this project.

Construction-related greenhouse gas emissions are modeled in detail in the air quality and greenhouse gas emissions technical study performed for the Project, presented in Appendix F to this Draft EIR/EA. Table 15-4 provides a summary of GHG emissions modeling results.

**Table 15-4: Overview of Construction-Related GHG Emissions – Proposed Project**

Construction Phase	Daily GHG Emissions (pounds/day)				Total GHG Emissions (tons/year)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
Mobilization	254.27	0.00	0.00	254.53	1.39	0.00	0.00	1.39
Access Construction	3,282.91	0.16	0.03	3,295.24	341.21	0.02	0.00	342.69
Manhole Rehabilitation	1,817.08	0.05	0.03	1,826.88	146.27	0.01	0.00	147.36
Siphon and Manhole Removal	4,000.39	0.21	0.03	4,013.93	35.39	0.00	0.00	35.52
Lone Jack Segment Realignment: Sewer Installation	4,468.10	0.28	0.03	4,482.91	189.54	0.01	0.00	190.19
Lone Jack Segment Realignment: Repaving	3,327.77	0.21	0.03	3,341.23	16.64	0.00	0.00	16.71
Finishing and Revegetation	1,705.37	0.12	0.02	1,713.32	29.50	0.00	0.00	29.65
Demobilization	254.27	0.00	0.00	254.53	1.39	0.00	0.00	1.39
<b>TOTALS:</b>	<b>16,896.26</b>	<b>0.90</b>	<b>0.15</b>	<b>16,960.19</b>	<b>761.33</b>	<b>0.04</b>	<b>0.01</b>	<b>764.91</b>

Source: ZMassociates 2014 (Appendix F of this Draft EIR/EA)

As Table 15-4 shows, projected greenhouse gas emissions associated with Project construction are well below the 900 metric tons/year (992 US tons/year) CO<sub>2</sub>e threshold and are thus evaluated as less than cumulatively considerable.

**Long-Term (Operational) Contributions**

Criteria Pollutants

By enabling expanded inspection, cleaning, and maintenance activities, the Project would result in a slight increase in the generation of emissions associated with the City’s sewer operations, as summarized in Table 15-5, which presents the results of emissions modeling alongside the thresholds used to screen for significant impacts (see Chapter 9 for more information).

**Table 15-5: Estimated Increase in Emissions – Post-Project Operations and Maintenance**

Criteria Pollutant	Operational Emission Level (Pounds/Day)		Net Increase		APCD Screening Threshold		Threshold Exceeded?
	Current	With-Project	Pounds/Hour*	Pounds/Day	Pounds/Hour	Pounds/Day	
Carbon monoxide (CO)	0.70	0.08	0.64	100	550	No	
Nitrogen oxides (NO <sub>x</sub> )	3.25	0.39	3.10	25	250	No	
Fine particulate matter (PM <sub>2.5</sub> )	0.12	0.014	0.11	—	55	No	
Respirable particulate matter (PM <sub>10</sub> )	0.19	0.02	0.17	—	100	No	
Sulfur oxides (SO <sub>x</sub> )	0.01	1.001	0.01	25	250	No	
Volatile organic compounds (VOC) / reactive organic gases (ROG)	0.14	0.005	0.04	—	75	No	

Source: ZMassociates 2014 (Appendix F of this Draft EIR/EA)

\* Assumes 8-hour workday

As shown in the table, the anticipated increase in operations and maintenance–related emissions following Project completion is substantially—in almost all cases several orders of magnitude—below the applicable APCD screening thresholds; the Project’s incremental potential to result in violation of applicable air quality standards is therefore evaluated as less than significant at the project-specific level.

As discussed in Chapter 9, the County APCD screening thresholds used to identify significant impacts were specifically developed to pinpoint the level at which a project’s emissions pose a threat to the attainment of air quality standards. Because the increase in emissions associated with use of the new access would be so far below the applicable screening thresholds, the Project’s long-term operational contributions of dust and tailpipe emissions are also considered less than cumulatively considerable.

Greenhouse Gases

The CAPCOA (2008) screening threshold of 900 metric tons/year (992 US tons/year) CO<sub>2</sub>e is also applicable to the evaluation of long-term operational greenhouse gas emissions, and both the City and the County use this value as the threshold at which greenhouse gas emissions are potentially significant and warrant detailed analysis. Additionally, the County APCD also promulgates a “Bright Line Threshold” of 2,500 metric/tons year

(2,755 US tons/year) CO<sub>2</sub>e, which represents the level at which the APCD considers a project’s greenhouse gas emissions significant (cumulatively considerable).

Operational greenhouse gas emissions—the emissions associated with the expanded program of inspections, cleaning, and maintenance enabled by the Project—are modeled in detail in the Project air quality and greenhouse gas emissions technical study (Appendix F to this Draft EIR/EA), and summarized in Table 15-6.

**Table 15-6: Overview of With-Project Operational GHG Emissions**

Activity	Daily GHG Emissions (pounds/day)				Total GHG Emissions (tons/year)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
OTS Inspections, Cleaning, and Maintenance	1,046.72	0.00	0.00	1,047.95	5.42	0.00	0.00	5.43

Source: ZMassociates 2014 (Appendix F of this Draft EIR/EA)

Modeling estimates that current operational emissions are on the order of 2.16 US tons CO<sub>2</sub>e annually (see Appendix F). As Table 15-6 shows, this emission level would approximately double with the new access in place, but both the Project-related increase in CO<sub>2</sub>e emissions (and the overall emissions level) would be substantially below both the screening threshold of 900 metric tons/year (992 US tons/year) CO<sub>2</sub>e and the Bright Line Threshold of 2,500 metric tons/year (2,755 US tons/year) CO<sub>2</sub>e. The Project’s long-term contribution to cumulative greenhouse gas levels is therefore evaluated as less than cumulatively considerable.

**Biological Resources, Jurisdictional Habitat**

As identified in Table 15-2, coastal San Diego County has experienced substantial loss and degradation of natural habitats over the past 2 centuries, representing a significant cumulative impact at the landscape level. At the species level, additional significant cumulative impacts are considered to exist where individual plant and wildlife species have been identified as qualifying for federal or state special status.

***Short-Term (Construction Period) Contributions***

As discussed in the *Environmental Commitments* section of Chapter 2, the Project would incorporate extensive commitments to protect biological resources, including both sensitive wetland and riparian habitats and the species that use them. These measures were developed based on requirements for past similar projects in the area, and additional requirements may be imposed through the regulatory permits needed to authorize the Project. With these precautions in place, and extensive regulatory oversight via the permit process, the potential for Project construction to result in short-term adverse impacts on sensitive habitats and special-status species is evaluated as less than significant at the incremental (project-specific) level (see Chapter 4).

A primary goal of regulatory oversight via the federal Clean Water Act, federal and state Endangered Species Acts, and California Fish and Game Code is to prevent long-term adverse cumulative impacts on sensitive habitats and protected species. In this context, the requirements of the Project’s regulatory permits—without which the Project cannot legally proceed—will be stipulated at a level that is adequately protective of the Creek/Lagoon corridor’s biological resources. Consequently, the Project’s contribution to cumulative impacts on habitats and species in the North County area is also evaluated as less than cumulatively considerable overall.

In the event that Project construction overlaps in close proximity to other Projects planned for the Escondido Creek/San Elijo Lagoon corridor, localized impacts could be temporarily amplified. Of particular concern in this context would be the potential for localized disturbance due to construction noise; with multiple projects underway in close proximity, it could become more difficult for wildlife to relocate out of noise-affected areas. This short-term overlap in construction noise could be considered to represent an additional, localized cumulative impact and depending on the level of disturbance, could rise to a level considered significant under CEQA and/or NEPA. In the context of this more localized cumulative impact, the Project's contribution would become more important, potentially rising to a cumulatively considerable level. To address this concern, the City will implement the following measure. With this measure in place, the Project's contribution to short-term localized cumulative disturbance impacts would be reduced to the extent feasible and is evaluated as less than cumulatively considerable.

### **Mitigation Measure CUME1: Coordinate with other Major Projects in San Elijo Lagoon and Escondido Creek**

In developing the Project construction schedule, the City will engage with the North Coast Corridor and San Elijo Lagoon Restoration projects regarding their planned construction schedules, activities, access routes, and staging locations, and to the extent feasible while still meeting Project objectives in a timely manner will coordinate to reduce construction in close proximity at the same time. As construction proceeds, the City's construction management team will continue to coordinate to minimize the additive effects of disturbance related to staging, construction activity, and construction traffic. During construction, check-ins will take place at least weekly.

### ***Long Term (Operational) Contributions***

By enabling expanded activity in the Creek/Lagoon corridor, the Project would have ongoing potential to affect sensitive biological resources, including wetland and riparian habitat as well as protected species. However, as discussed above, the Project cannot legally proceed without permit authorizations under the federal Clean Water Act, federal and state Endangered Species Acts, and California Fish and Game Code. A primary goal of regulatory oversight under these statutes is to prevent and redress long-term adverse cumulative impacts on sensitive habitats and protected species. To this end, the Project's permits, assuming they are granted, will impose requirements (Terms and Conditions) laying out specific procedures and prohibitions to project biological resources. These are expected to be broadly similar to the *Environmental Commitments* presented in Chapter 2 (activity limited to access footprint, restrictions on vegetation trimming/removal, measures to protect nesting birds, etc.) and will be at least as protective as these measures, but may include additional specifics. With these Terms and Conditions in place, future operations and maintenance activities would be guided consistent with federal and state regulations protecting biological resources, and the Project's potential contribution to long-term cumulative impacts on habitats and species in the North County area is expected to be less than cumulatively considerable.

### **Hydrology and Water Quality**

As identified in Table 15-2 and discussed in more detail in Chapter 3, a number of streams, lakes, reservoirs, and ocean/bay waters in the San Diego area are included on the State Water Resources Control Board's current list of water quality-impaired water bodies, representing a significant cumulative regional impact on water quality. More locally, water quality in Escondido Creek and San Elijo Lagoon reflects the influence of surrounding urban/suburban and agricultural uses; both the Creek and the Lagoon are identified on the federal Clean Water Act Section 303[d] list as impaired for multiple pollutants, as follows.

- Escondido Creek – impaired for DDT, *Enterococcus*, fecal coliform, manganese, phosphate, and selenium
- San Elijo Lagoon – impaired for eutrophy, indicator bacteria, and sedimentation / siltation

This represents the local (Project area) manifestation of the greater regional impact.

### ***Short-Term (Construction Period) Contributions***

As Chapter 3 discusses in more detail, Project construction would have the potential to contribute to water quality degradation through accelerated erosion and sedimentation and the use of potentially toxic substances. However, the Project will implement a SWPPP that provides comprehensive measures for water quality protection, including prohibitions on fueling and maintenance in sensitive habitats, precautions for inwater work, spill prevention and containment measures, and measures to reduce erosion and control runoff from disturbed areas. The SWPPP will be subject to regulatory standards and will be developed and implemented under the supervision of qualified staff. With the SWPPP in place, the Project's potential to impact water quality during construction is evaluated as less than significant at the incremental (project-specific) level and would not rise to a level representing a considerable contribution to either the local or regional cumulative impact on water quality.

### ***Long Term (Operational) Contributions***

As Chapter 3 discusses, there would be some potential for impacts on water quality as a result of the expanded operations and maintenance activities enabled by the new access route. However, as identified in the *Biological Resources* section above, the Project cannot legally be implemented without permit authorization under the federal Clean Water Act, federal and state Endangered Species Acts, and California Fish and Game Code. Authorization under the California Coastal Act will also be required. Protection of water quality—as an end in itself, and also as it relates to habitat function and value and the protection of biological resources—is a key goal of all of these review and authorization processes. The Project's permits, assuming they are granted, will impose requirements (Terms and Conditions) that include stipulations to protect water quality during ongoing operations. These will be similar to, and at least as protective as, the contents of the SWPPP as described in the *Environmental Commitments* section of Chapter 2, and will be subject to a similar level of regulatory scrutiny and oversight. With the permit Terms and Conditions in place, water quality would continue be protected consistent with applicable regulations once the new access is use, and the Project's contribution, if any, to long-term cumulative water quality impacts would be effectively reduced to a less than considerable level.

### **Traffic and Transportation**

The projected increase in traffic from expanded operations would be so small that it is evaluated as having no potential to significantly alter roadway or intersection function over the long term; as Table 15-2 concludes, no further analysis of the Project's long-term contribution to cumulative traffic impacts is warranted. This section therefore focuses on short-term (construction period) contributions only.

As shown in Table 15-2, two roadways offering primary arterial access to the Project alignment are currently operating at an unacceptable LOS, at least intermittently: Rancho Santa Fe Road (LOS F) and Encinitas Boulevard (LOS F). Two key intersections in the Project vicinity are also at least intermittently at an unacceptable LOS: Rancho Santa Fe and Lone Jack Road (LOS E/F), and Rancho Santa Fe Road and El Camino del Norte (LOS D/E). This represents a significant existing cumulative impact on transportation system function.

Construction would add heavy trucks and worker commute vehicles to area roadways. This is summarized in Table 15-7 on the next page and discussed in more detail in Chapter 7.

**Table 15-7: Overview of Construction Traffic Generation**

Project Element	Timeframe	Traffic Generation
Access construction	250 working days	<ul style="list-style-type: none"> <li>7 daily worker commute round-trips</li> <li>1 semi-truck round trip for materials delivery approximately every 4 days on average</li> <li>6 total semi-truck round trips for heavy equipment mobilization and demobilization</li> </ul>
Manhole rehabilitation	235 working days	<ul style="list-style-type: none"> <li>4 daily worker commute trips</li> <li>1 mid-sized truck round trip approximately every 4 days</li> <li>6 total truck trips for mobilization/demobilization</li> </ul>
Siphon and manhole removal	10 working days	<ul style="list-style-type: none"> <li>7 daily worker commute round-trips</li> <li>8 total semi-truck trips for materials delivery and mobilization/demobilization</li> </ul>
Lone Jack realignment	90 working days	<ul style="list-style-type: none"> <li>7 daily worker commute round-trips</li> <li>1 semi-truck round trip materials for materials delivery approximately every 6 days</li> <li>6 semi-truck trips for mobilization/ demobilization</li> </ul>

The number of added trips would be comparatively small, but in view of the potential to exacerbate already degraded LOS along busy commute routes, the City has committed to require the Project contractor to develop and implement a construction period Traffic Control Plan. As described in Chapter 2 (*Environmental Commitments* section), the Plan will contain specific requirements relative to regional access and local access (such as use of designated truck routes, avoidance of congested roadways and intersections, avoidance of residential roadways, and limitations on permissible travel times to avoid peak commute hours), requirements to reduce impacts on alternate modes of transportation such as bicycle and pedestrian traffic, safety protocols for in-roadway work, and limitations on permissible locations for construction staging and worker parking.

The Traffic Control Plan will be prepared in coordination with emergency services providers, including the Encinitas Fire Department, and will be subject to City review and approval. The City will have oversight to verify proper and effective implementation. With the Traffic Control Plan in place, the potential for Project-related construction traffic to further degrade LOS on key access roadways would be effectively reduced and is evaluated as less than significant at the incremental (Project-specific) level.

In the event that Project construction overlaps in close proximity to other Projects planned for the Escondido Creek/San Elijo Lagoon corridor, localized impacts could be temporarily amplified, as identified in *Biological Resources* above. In addition to the potential for increased noise disturbance of wildlife, discussed above, there would also be potential for combinatory effects with construction traffic from more than one project using already-impacted roadways. Such a short-term overlap in construction traffic could be considered to represent an additional, localized cumulative impact and depending on the level of disruption, could rise to a level considered significant under CEQA and/or NEPA. In the context of this more localized cumulative impact, the Project's contribution would become more important, potentially rising to a cumulatively considerable level. This concern would be addressed by implementation of Mitigation Measure CUME1 (*Coordinate with other Major Projects in San Elijo Lagoon and Escondido Creek*). With the Traffic Control Plan and Mitigation Measure CUME1 in place, the Project's contribution to cumulative degradation of roadway and intersection function would be reduced to the extent feasible and is evaluated as less than cumulatively considerable.

## Potential to Create Cumulative Impacts through Repeated Activities

Construction would be short-term and temporary and would not entail long-term repetitive activities; this section therefore focuses on the expanded program of inspections, cleaning, and maintenance that would be enabled by the Project over the longer term. This analysis considers only the resources for which a significant existing cumulative impact has not been identified: aesthetics/visual resources, hazards and hazardous materials, noise, paleontological resources, utilities, and environmental justice. The Project's potential contribution to existing significant cumulative impacts is discussed in the preceding section.

As described in Chapter 2, the new access would enable the City to reinstate its comprehensive program of inspections, cleaning, and maintenance along the full length of the OTS below El Camino del Norte. This would increase the level of operations and maintenance-related activity by comparison with what is currently occurring. With the new access in place, operational activities would entail

- Crews of 1 – 2 persons accessing each manhole twice yearly for visual inspection
- Crews of 2 – 3 persons accessing each manhole once a year for CCTV video inspection
- Use of the Vac-Con for cleaning at each manhole for twice a year for approximately 2 hours per manhole
- Occasional/as-needed access road maintenance and invasive plant removal.

With the exception of the Vac-Con, vehicle use would be limited to crew trucks and vans; heavy equipment is not anticipated.

The potential for these activities to create a cumulative impact is itemized by resource below.

- **Aesthetics:** The expanded program of inspections, cleaning, and maintenance enabled by the Project would increase the presence of vehicles and equipment within the Creek/Lagoon corridor, and could slightly increase overall visual disturbance due to human presence and activity, as well as slightly increasing the generation of glare from metal and glass surfaces. However, operational visits would be limited and the number of personnel and vehicles involved would be small. Work would also be localized and would be very short-term in any given location. The overall change in visual quality as a result of repeated activities under the expanded operational regime is not considered to rise to the level of a significant cumulative impact.
- **Hazards and Hazardous Materials:** Once construction is completed, there would be no further need for use of materials that qualify as hazardous, with the exception of the fuels and lubricants required for the City's Vac-Con and support vehicles. No fueling or servicing would occur in the field; this activity would continue to be restricted to the City's Corporation Yard. By enabling vehicle access into portions of the Creek/Lagoon corridor that are currently not accessible to City maintenance crews, the Project would have the potential to increase the risk of upsets and releases slightly, but the increase in risk level would be very small. As discussed in Chapter 10, it is evaluated as less than significant at the incremental level, and is not considered to create the potential for a significant long-term cumulative impact.
- **Noise and Vibration:** With the new access in use, the area covered by operations and maintenance would increase somewhat, so additional parcels could be exposed to noise/vibration generated by the Vac-Con and crew trucks. However, work would be intermittent, periodic, and very short-term in any given location (on the order of several times per year in total, for a duration of less than 2 hours). As a result, the long-term additive effect of this minor potential increase in noise/vibration exposure is not considered to rise to the level of a significant cumulative impact.

- **Paleontological Resources:** The expanded program of inspections, cleaning, and maintenance enabled by the Project would not involve ground disturbing activities; moreover, all access and activity going forward will be confined within the new access footprint, which would be substantially disturbed (excavated, backfilled, and revegetated) during construction, and thus would have no potential to contain significant paleontological resources. There would thus be no potential to create a cumulative impact on paleontological resources.
- **Utilities:** As discussed in Chapter 11, the Project would have no incremental (project-level) operations-related impacts with respect to wastewater treatment capacity, stormwater facilities, water entitlements/water supply, electrical power, solid waste regulations, or landfill capacity. There would thus be no potential to create a significant cumulative impact related to any of these utilities. By improving the City's ability to inspect, clean, and maintain a critical wastewater facility, the Project would, however, substantially benefit sanitary sewer system function and reliability over the long term.
- **Environmental Justice:** The Project has no potential for incremental (project-level) impacts related to environmental justice and thus no potential to create a long-term cumulative impact on environmental justice.

## Action Alternatives

### Potential Contributions to Existing Cumulative Impacts

The construction process would be very similar under the action alternatives to that under the Proposed Project, with the same environmental commitments and permit requirements incorporated. The potential for construction-period contributions to existing cumulative impacts would thus be the same under both action alternatives to what is described for the proposed Project, for the same reasons.

Because the expanded operational regime (inspections, cleaning, and maintenance) would also be essentially the same as under the proposed Project, with the same protective measures incorporated, long-term potential for contributions to existing cumulative impacts would also be very similar to what is described above for the proposed Project, for the same reasons.

### Potential to Create Cumulative Impacts through Repeated Activities

The operational regime would be essentially the same under both action alternatives to that under the proposed Project, and the same types of protective measures would be required through the federal and state permit processes. The potential to create cumulative impacts through repeated activities would thus be the same under all of the action alternatives to what is described above for the proposed Project, for the same reasons.

### No Project/No Action Alternative

Under the No Project/No Action Alternative, no access would be constructed, the siphon and associated manhole would remain in place, no manhole rehabilitation would occur, and the portion of the OTS upstream of El Camino del Norte would not be realigned or upsized. As a result, there would be no immediate short-term potential for construction period contributions to existing cumulative impacts. Over the longer term, manhole rehabilitation would eventually become necessary, and could proceed either as part of a larger project, or on an ad-hoc emergency/as-needed basis. Under either scenario, there would be some potential for construction-related contributions to existing cumulative impacts. The extent and nature of these

contributions is not considered reasonably foreseeable at this time, since the details of the work cannot be predicted. If, however, the situation is allowed to deteriorate to the point where emergency repairs are required, regulatory oversight could be reduced by streamlined approvals for emergency work, so the potential for cumulatively considerable contributions could increase.

The No Project/No Action Alternative would also continue the current, restricted operational regime unchanged. With no additional inspections, cleaning, or maintenance there would be no increase in contributions to any of the identified significant cumulative impacts in the project region, itemized in Table 15-2. There would also be no potential for independent creation of new cumulative impacts due to the initiation of a program entailing repeated similar activities.

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# Chapter 16

## Impacts Comparison and Environmentally Superior Alternative

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### Chapter Overview

This chapter contains a summary of the proposed Project’s significant impacts and the measures identified to avoid, reduce, or compensate for them. It then compares the impacts of the proposed Project, the action alternatives, and the No Project/No Action Alternative, including several significant and unavoidable impacts associated with the alternatives. Based on the impacts comparison, this chapter also identifies the environmentally superior alternative and compares its outcomes to those of the Project as proposed.

Identification of the environmentally superior alternative responds to direction in Section 15126.6[e][2] of the *CEQA Guidelines*, which requires lead agencies to identify the best of the identified alternatives to a proposed Project (i.e., the environmentally superior approach *among the alternatives*). In this case, because of the emphasis on developing a Project approach that would effectively avoid and minimize adverse environmental impacts, the environmentally superior alternative (Alternative 1) would actually have greater potential for adverse impacts on several key resources than the proposed Project.

### Impacts Summary and Comparison

Table 16-1 briefly compares the impacts anticipated under the proposed Project and the various alternatives, based on the greatest identified level of impact for each resource analyzed in this Draft EIR/EA. Note that the findings presented in Table 16-1 assume that all action alternatives would implement the environmental commitments identified in Chapter 2. Environmental justice is omitted from the comparison, since none of the project approaches would have impacts related to environmental justice (see Chapter 12). Additional discussion and comparison follows Table 16-1, organized by resource topic.

**Table 16-1: Summary Comparison of Impacts – Proposed Project and Alternatives**

Resource	Project Approach				Environmentally Superior Alternative, by Resource
	Proposed Project	Alternative 1	Alternative 2	No Project/No Action	
Hydrology and Water Quality	LTS	LTS	SU	SU	Alternative 1
Biological Resources	LTSM	LTSM	LTSM	SU	Alternative 1
Cultural Resources	LTSM	LTSM	LTSM	NI over short-term; long-term impacts are not reasonably foreseeable in detail but could be significant	Alternative 2
Aesthetics	Short-term and localized SU	Short-term and localized SU	Short- and long-term SU		Alternative 1
Transportation and Traffic	LTS	LTS	LTS		Short-term: No Project/No Action Alternative Long-term: Action Alternatives

Resource	Project Approach				Environmentally Superior Alternative, by Resource
	Proposed Project	Alternative 1	Alternative 2	No Project/No Action	
Noise and Vibration	LTS	LTS	LTS		Short-term: No Project/No Action Alternative Long-term: Action Alternatives
Air Quality, Greenhouse Gas Emissions	LTS	LTS	LTS		Short-term: No Project/No Action Alternative Long-term: Action Alternatives
Hazards and Hazardous Materials	LTSM	LTSM	LTSM		Short-term: No Project/No Action Alternative Long-term: Action Alternatives
Utilities and Service Systems	NI	NI	NI	SU	Action Alternatives

**Key to Abbreviations:**

- NI = There would be no impact on this resource
- LTS = All impacts would be less than significant under CEQA and NEPA
- LTSM = Incorporation of mitigation would reduce all potentially significant impacts to a level considered less than significant under CEQA and NEPA
- SU = There would be at least one significant and unavoidable impact related to this resource

**Impact Comparison by Resource**

**Hydrology and Water Quality**

The matrix below summarizes the proposed Project’s impacts related to surface and groundwater hydrology, hydraulics, flood hazards, and water quality.

Impact	Significance	Mitigation	Significance with Mitigation
HWQ1 – Potential to Violate Water Quality Standards during Construction	Less than significant	<i>None required</i>	Less than significant
HWQ2 – Potential to Violate Water Quality Standards during Operations	Less than significant <b>Long-term: Benefit</b>	<i>None required</i>	Less than significant <b>Long-term: Benefit</b>
HWQ3 – Potential to Impede or Redirect Floodflows	Less than significant	<i>None required</i>	Less than significant
HWQ4 – Potential to Increase Runoff On- or Offsite	No impact	<i>None required</i>	No impact

Impact	Significance	Mitigation	Significance with Mitigation
HWQ5 – Potential to Result in Substantial Erosion or Siltation On- or Offsite	Construction period: Less than significant Long-term: No impact	<i>None required</i>	Less than significant
HWQ6 – Potential to Interfere with Groundwater Recharge	No impact	<i>None required</i>	No impact
HWQ7 – Potential to Deplete Groundwater Supplies	No impact	<i>None required</i>	No impact
HWQ8 – Potential to Expose People or Structures to Tsunami, Seiche, Mudflow, or Dam Failure Inundation Hazards	Less than significant	<i>None required</i>	Less than significant

Impacts under Alternatives 1 and 2 would be similar to those under the proposed Project: although the location and footprint of the new access would differ from the proposed Project, the construction process would be essentially the same, and both action alternatives would incorporate the same environmental commitments and SWPPP requirements. Both action alternatives would likely also be subject to similar permit terms, and, like the proposed Project, neither would require the use of groundwater.

Project outcomes would also be broadly similar under the 2 action alternatives: both action alternatives would result in relocating a portion of the OTS upstream of El Camino del Norte into Lone Jack Road, removing the siphon and 2 accompanying manholes, and rehabilitating remaining manholes along the Project alignment. Both action alternatives would also enable the City to inspect, clean, and maintain the entirety of the OTS between El Camino del Norte and Manchester Avenue, substantially reducing the potential for spills, failures, and overflows. As a result, the following impacts are expected to be essentially the same under the 2 action alternatives as under the proposed Project.

- HWQ1, *Potential to Violate Water Quality Standards during Construction*
- HWQ2, *Potential to Violate Water Quality Standards during Operations*
- HWQ4, *Potential to Increase Runoff On- or Offsite*
- HWQ5, *Potential to Result in Substantial Erosion or Siltation On- or Offsite*
- HWQ6, *Potential to Interfere with Groundwater Recharge*
- HWQ7, *Potential to Deplete Groundwater Supplies*
- HWQ8, *Potential to Expose People or Structures to Tsunami, Seiche, Mudflow, or Dam Failure Inundation Hazards*

Impact HWQ3 (*Potential to Impede or Redirect Floodflows*) would also be very similar under Alternative 1 to what is described for the proposed Project since Alternative 1 would entail no modification of existing channel or floodplain geomorphology and would install either an “engineered Arizona crossing” or an appropriately sized culvert with at-grade approaches where Level 5 improvements are needed.

By contrast, Impact HWQ3 would differ substantially under either of the Alternative 2 scenarios – Alternative 2A, which would construct a linear access following the City’s existing OTS easement; or

Alternative 2B, which would follow the existing easement along much of the Project reach but would deviate from it to bypass particularly challenging and/or sensitive areas. Both the 2A and 2B scenarios would involve much more extensive construction within the axial portion of the Creek/Lagoon system, adjacent to or within active channels in many places. As a result, there would be a substantially greater need for Level 5 improvement, and because the new access would run parallel or subparallel to the prevailing channel orientation, the “engineered Arizona crossing” would be challenging to implement without geomorphic modification, and might not be feasible in some of the wettest areas.

Culverting the Level 5 segments would offer feasible all-weather passage, but is extremely undesirable from the perspective of habitat function and value, and would also require substantial geomorphic modification. As a result, under either approach (2A or 2B), Alternative 2 is evaluated as having the potential for significant impacts related to local impedance or redirection of floodflows. Because the potential for this type of effect was taken into account and avoided/reduced to the extent feasible during the alternatives development process, the level of impact not already addressed through conceptual design is also considered unavoidable.

The No Project/No Action Alternative would entail no immediate construction or rehabilitation activity and thus would have no construction-related impact on water quality or erosion/siltation. With no new access constructed, there would also be no potential for impacts associated with topographic modification and installation of new facilities within the floodway. Over the longer term, with no new access route and no realignment, the City’s current program of inspections, cleaning, and maintenance would continue at the existing level.

As discussed in Chapters 2 and 3, the OTS is accumulating sediment such that several manholes are now nearing a condition of surcharge, creating a very real (i.e., reasonably foreseeable under CEQA) potential for spill, overflow, or failure if the current deficiencies in cleaning and maintenance access are not corrected. Over time, further degradation of unrehabilitated manholes could also contribute added sediment loading to the Creek and Lagoon, as manhole structures break down physically. Both of these outcomes would adversely impact water quality in the Creek and/or Lagoon, with the potential to cause violation of water quality objectives for various contaminants. The No Project/No Action Alternative would thus have the potential for significant impacts relative to violation of water quality standards. Because these impacts would not be reliably averted without a separate future discretionary project or projects, they are also considered unavoidable.

**Environmentally Superior Alternative for Hydrology and Water Quality:** *Alternative 1 is identified as the environmentally superior alternative for hydrology and water quality since it—like the proposed Project—would avoid significant impacts on these resources. Alternative 2, as identified above, would have the potential for significant and unavoidable impacts related to local impedance or redirection of floodflows, and No Project/No Action would carry a significant and unavoidable long-term risk to water quality in Escondido Creek and San Elijo Lagoon.*

### **Biological Resources**

The matrix on the next page summarizes the proposed Project’s impacts related to special-status species, sensitive vegetation communities, and jurisdictional habitat. This summary assumes the incorporation of regulatory permit Terms and Conditions providing species-specific protection for protected bird species, as discussed in Chapter 4.

Impact	Significance	Mitigation	Significance with Mitigation
BIO1– Potential for Adverse Effects on Special-Status Plants	Less than significant	<i>None required</i>	Less than significant
BIO2 – Potential for Adverse Effects on Special-Status Wildlife	Construction period impacts on nesting birds: Potentially significant All other impacts: Less than significant	BIO2.1: Conduct Pre-Construction Nesting Bird Surveys BIO2.2: Protect Occupied Nests	Less than significant
BIO3 – Potential for Adverse Effects on Sensitive Natural Upland Communities	Construction period: Less than significant <b>Long-term: Benefit</b>	<i>None required</i>	Construction period: Less than significant <b>Long-term: Benefit</b>
BIO4 – Potential for Adverse Effects on Wetlands and Other Jurisdictional Waters	Construction period: Less than significant <b>Long-term: Benefit</b>	<i>None required</i>	Construction period: Less than significant <b>Long-term: Benefit</b>
BIO5 – Potential to Interfere with the Movement of Native Fish or Wildlife or Established Wildlife Corridors	Less than significant	<i>None required</i>	Less than significant
BIO6 – Potential to Impede the Use of Native Wildlife Nursery Sites	Less than significant	<i>None required</i>	Less than significant
BIO7 – Potential to Conflict with Local Policies or Regulations Protecting Biological Resources	No impact	<i>None required</i>	No impact
BIO8 – Potential to Conflict with an Adopted Conservation Plan	No impact	<i>None required</i>	No impact

Impacts on special-status species, sensitive vegetation communities, and jurisdictional habitat would be generally similar under the 2 action alternatives to those identified for the proposed Project. As the previous section identifies, although the location and footprint of the new access would differ somewhat from the proposed Project, the construction process would be essentially the same under both action alternatives, and both action alternatives would incorporate the same environmental commitments. Both action alternatives would also be subject to the same regulatory permitting process and oversight, including requirements to compensate appropriately for habitat loss.

Project outcomes would also be broadly similar under the 2 action alternatives: both would result in relocating a portion of the OTS upstream of El Camino del Norte into Lone Jack Road, removing the siphon and 2 accompanying manholes, and rehabilitating remaining manholes along the Project alignment. Both action alternatives would also enable the City to inspect, clean, and maintain the entirety of the OTS between El Camino del Norte and Manchester Avenue, much of which is currently inaccessible to City crews and equipment. This would substantially reduce the potential for spills, failures, and overflows associated with this critical wastewater facility, and would have a substantial long-term benefit for sensitive upland and wetland habitats in Escondido Creek and San Elijo Lagoon.

In light of the construction and operational similarities between the action alternatives and the proposed Project, the overall level of impact for the following impacts would similar to that discussed for the proposed Project.

- BIO1, *Potential for Adverse Effects on Special-Status Plants*
- BIO2, *Potential for Adverse Effects on Special-Status Wildlife*
- BIO3, *Potential for Adverse Effects on Sensitive Natural Communities*
- BIO4, *Potential for Adverse Effects on Wetlands and Other Jurisdictional Waters*
- BIO5, *Potential to Interfere with the Movement of Native Fish or Wildlife or Established Wildlife Corridors*
- BIO6, *Potential to Impede the Use of Native Wildlife Nursery Sites*
- BIO7, *Potential to Conflict with Local Policies or Regulations Protecting Biological Resources*
- BIO8, *Potential to Conflict with an Adopted Conservation Plan*

There would however be important differences between the action alternatives, as well as between the 2 action alternatives and the proposed Project. Because of differences in the footprints of the 3 action approaches, the overall acreage habitat affected by Project construction differs somewhat, as does the extent of particular vegetation communities involved. The differences are summarized in Table 16-2 and presented in more detail in Chapter 4 (see Tables 4-5 and 4-6 in particular).

**Table 16-2: Impact Acreages by Habitat Type – Summary Comparison**

Habitat	Anticipated Impacts (Acres)				No Project/ No Action
	Proposed Project	Action Alternatives			
		Alternative 1	Alternative 2A	Alternative 2B	
<b><i>Vegetation Community/Land Cover Type</i></b>					
Jurisdictional habitat	3.47	3.80	4.32	3.95	0.00
Sensitive upland habitat	1.00	0.61	0.70	0.92	0.00
<b>Total impact in sensitive habitat:</b>	<b>4.47</b>	<b>4.41</b>	<b>5.02</b>	<b>4.87</b>	<b>0.00</b>
<b><i>Nesting Habitat for Special-Status Birds</i></b>					
Belding's Savannah Sparrow	0.23	0.23	0.2	0.2	0.00
Coastal California Gnatcatcher	0.30	0.19	0.36	0.36	0.00
Least Bell's Vireo	0.72	0.59	1.34	1.08	0.00
Light-footed Ridgway's Rail	0.08	0.37	0.17	0.17	0.00
<b>Total impact in special-status bird nesting habitat:</b>	<b>1.33</b>	<b>1.38</b>	<b>2.07</b>	<b>1.81</b>	<b>0.00</b>

As Table 16-2 shows, overall impacts on jurisdictional habitat would be greater under both action alternatives by comparison with the proposed Project, although the balance between jurisdictional and upland impacts would differ; impacts on sensitive upland habitat would decrease slightly under Alternatives 1 and 2. Overall habitat impacts would be slightly lessened under Alternative 1 and would be slightly increased under Alternative 2. There would also be slight differences among the alternatives as regards impacts on habitat supporting special-status bird nesting (and thus, the potential for indirect impacts on the species). Impacts on

Belding's Savannah Sparrow habitat would decrease slightly under Alternative 2 by comparison with the proposed Project and Alternative 1. Impacts on Coastal California Gnatcatcher and Least Bell's Vireo habitat would decrease under Alternative 1 and increase under Alternative 2 by comparison with the proposed Project, and impacts on Light-footed Ridgway's Rail would increase under all of the action alternatives by comparison with the proposed Project.

In addition to the differences in acreage impacts, both of the Alternative 2 scenarios (2A and 2B) would create linear access along much of the OTS alignment, with a greater extent of along-alignment access than either the proposed Project or Alternative 1. As a result, the potential for habitat disconnection and associated adverse impacts would be greater under Alternatives 2A and 2B than under Alternative 1 or the proposed Project.

Under the No Project/No Action Alternative, with no construction in the Creek/Lagoon corridor, there would be no immediate short-term potential for impacts on special-status plants, special-status wildlife, sensitive natural communities, jurisdictional habitat, or wildlife corridors and nursery sites. Over the longer term however, with no rehabilitation of aging system components and no improvement in the City's ability to clean and maintain the OTS, the No Project/No Action alternative would lack the benefits to Creek and Lagoon habitat offered by the proposed Project.

Over the longer term, the aging manholes along the project reach of the OTS would continue to deteriorate, and would eventually require rehabilitation under a separate future project or projects, which would likely have the potential for impacts on sensitive habitat and special-status species, although specifics would depend on the timing, extent, and specific nature of future work and must be considered speculative at this time. In addition, until rehabilitation is accomplished and access to enable a full program of inspections, cleaning, and maintenance can be provided, there would be a very real potential for failures and spills that would adversely affect water quality, degrading habitat function and value.

All of the adverse outcomes identified for the No Project/No Action Alternative would also be inconsistent with City policies and ordinances protecting biological resources, including the Escondido Creek corridor, Lagoon habitats, and wetlands in general. Such outcomes would also be inconsistent with the spirit of draft and adopted conservation plans covering the North County area. The No Project/No Action Alternative is therefore also considered to have significant and unavoidable impacts with regard to conflict with local policies or regulations and conflict with an adopted conservation plan.

**Environmentally Superior Alternative for Biological Resources:** *Both Alternative 2 scenarios would result in significant and unavoidable impacts related to habitat disconnection, and No Project/No Action would carry a significant long-term risk to biological resources due to the potential for sewer system failures and spills. Alternative 1 is identified as environmentally superior for biological resources since it would result in a smaller overall impact on sensitive habitat and nesting habitat for special-status bird species, while avoiding the habitat disconnection associated with Alternative 2 and the undesirable outcomes of No Project/No Action.*

### Cultural and Paleontological Resources

The matrix below summarizes the proposed Project’s impacts related to known and previously unrecorded archaeological resources, historic resources, and human remains.

Impact	Significance	Mitigation	Significance with Mitigation
CUL1 – Potential to Result in a Substantial Adverse Change in the Significance of a Known Historic-Era Resource	Potentially significant	CUL1.1: Provide Qualified Archaeologist Supervision for Removal and Reinstallation of Historic-Era Fence Posts  CUL1.2: Provide Qualified Archaeologist and Native American Monitoring for Ground-Disturbing Activities in Vicinity of Area of Concern 2	Less than significant
CUL2 – Potential to Result in a Substantial Adverse Change in the Significance of a Known Archaeological Resource	Potentially significant	CUL2.1: Conduct Resource Evaluation and Implement Treatment Follow-Up	Less than significant
CUL3 – Potential to Result in a Substantial Adverse Change in the Significance of Previously Unrecorded (Unknown) Resources	Potentially significant	CUL3.1: Provide Qualified Archaeologist and Native American Monitoring for Additional Ground-Disturbing Activities	Less than significant
CUL4 – Potential to Result in a Substantial Adverse Change to a “Unique Archaeological Resource”	No impact	<i>None required</i>	No impact
CUL5 – Potential for Disturbance of Human Remains	Potentially significant	CUL5.1: Comply with State Requirements in the Event Human Remains Are Discovered	Less than significant
CUL6 – Potential for Loss, Damage, or Destruction of Paleontological Resources	Potentially significant	CUL6.1: Retain Qualified Paleontologist Staff to Conduct Design Review and Implement Treatment Plan	Less than significant

Like the proposed Project, Alternatives 1 and 2 would be located in the Escondido Creek corridor and San Elijo Lagoon, which have a long history of human habitation and documented sensitivity for cultural resources (over 80 known resources present within 0.5 mile of the OTS alignment). Both action alternatives would thus have the potential for significant impacts on previously undiscovered historic and archaeological resources and human remains. However, both action alternatives – like the proposed Project – would incorporate extensive commitments for monitoring during ground-disturbing activities, combined with appropriate follow-up (evaluation and treatment) in the event resources are encountered. Consequently, the following impacts would be the same for both action alternatives as for the proposed Project.

- CUL3, *Potential to Result in a Substantial Adverse Change in the Significance of Previously Unrecorded (Unknown) Resources*
- CUL4, *Potential to Result in a Substantial Adverse Change to a “Unique Archaeological Resource”*
- CUL5, *Potential for Disturbance of Human Remains*

Under both action alternatives, the location and configuration of the new access would differ from the proposed Project, resulting in a different potential to affect the three known historic resources discussed as

Areas of Concern in Chapter 5. The two action alternatives’ potential to impact known resources therefore differs somewhat, both from the proposed Project and from one another. In particular,

- Alternative 1 would run adjacent to, and could impact, the archaeological resources (lithic scatter, shell midden, and groundstone finds) identified as Areas of Concern 1 and 3, while Alternative 2 would avoid both of these resources
- Both action alternatives would avoid the historic ranch complex identified as Area of Concern 2

Under the No Project/No Action Alternative, there would be no modification or addition to the existing OTS infrastructure: no manhole rehabilitation, no realignment, no new access, and no manhole or siphon removal. As a result, there would be no Project-related ground disturbance and no immediately foreseeable impact on cultural resources. Over the longer term, existing facilities will continue to age, and at some point, rehabilitation or replacement of additional manholes will become critical. Some level of ground disturbance can reasonably be expected in association with these activities, although the timing, nature, and extent of the work – and thus the extent of ground disturbance – is speculative at this time. It is clear however that although the No Project/No Action alternative would avoid immediate short-term potential for construction-related impacts on cultural resources, it would have the potential for such impacts over the longer term. Moreover, if maintenance and cleaning needs are not addressed proactively, the potential that repairs would need to be made on an emergency basis is expected to increase. This could increase the potential for significant unmitigated impacts on cultural resources since emergency repairs typically need to be made on an immediate basis and are exempt from the CEQA process when they involve “publicly ... owned service facilities necessary to maintain service essential to the public health, safety or welfare” (*CEQA Guidelines* §15269[b]).

**Environmentally Superior Alternative for Cultural Resources:**

*Overall, with mitigation incorporated, the potential for impacts on undocumented cultural resources and human remains would be essentially the same under both action alternatives, but Alternative 1 would have a greater potential to impact known resources, since it would impinge on 2 of the 3 Areas of Concern identified in Chapter 5. The No Project/No Action Alternative would avoid the immediate potential for impacts on cultural resources, but would have the potential for impacts over the long term, and could have significant, potentially unmitigated, impacts since it would be more likely to involve emergency work that is not subject to CEQA review and mitigation requirements. Alternative 2 is therefore considered environmentally superior for cultural resources.*

**Aesthetics**

The matrix below summarizes the proposed Project’s impacts related to scenic resources, visual character and quality, glare, and nighttime light.

Impact	Significance	Mitigation	Significance with Mitigation
Impact AES1 – Potential for Permanent Damage to Designated Scenic Resources	No impact; limited local benefit	<i>None required</i>	No impact; limited local benefit
Impact AES2A – Potential for Degradation of Visual Character and Quality from Construction	Construction: Significant Revegetation establishment: Significant	AES2A.1: Provide Visual Screening for Construction Staging and Maintain Orderly Construction Areas	Construction: Less than significant Revegetation establishment: <b>Significant and unavoidable</b>

Impact	Significance	Mitigation	Significance with Mitigation
Impact AES2B – Potential for Degradation of Visual Character and Quality from Operations	No impact	<i>None required</i>	No impact
Impact AES3 – Potential to Introduce New Sources of Substantial, Visually Intrusive Glare	Less than significant	<i>None required</i>	Less than significant
Impact AES4 – Potential to Introduce New Sources of Nighttime Light with the Potential to Contribute to “Light Spill”	No impact	<i>None required</i>	No impact

The construction process under both Alternative 1 and Alternative 2 would be essentially the same as that described for the proposed Project, and the overall nature and extent of the new facilities would also be generally similar. Under both of the action alternatives, the new access – which would be the most visually sensitive project component because of its location entirely within the Escondido Creek/San Elijo Lagoon scenic corridor – would adhere to the same design principles of minimizing width and footprint, matching finished grade to existing grade such that topographic alteration is avoided, and revegetating with native species consistent with surrounding vegetation. The important difference between them is that Alternative 1 would rely on access spurs, while Alternative 2 (both the 2A and 2B scenarios) would create “axial” access along the length of the City’s OTS easement. Visual impacts under Alternative 1 would therefore be essentially the same as those under the proposed Project. Impacts would be less than significant for the following.

- AES1, *Potential for Permanent Damage to Designated Scenic Resources*
- AES2B, *Potential for Degradation of Visual Character and Quality from Operations*
- AES3, *Potential to Introduce New Sources of Substantial, Visually Intrusive Glare*
- AES4, *Potential to Introduce New Sources of Nighttime Light with the Potential to Contribute to “Light Spill”*

Impact AES2A (*Potential for Degradation of Visual Character and Quality from Construction*) would also be very similar under Alternative 1 to what is described for the proposed Project; temporary and short-term visual impacts of active construction would be less than significant with mitigation incorporated, but visual impacts during the vegetation recovery period are considered significant and unavoidable. This applies to Alternative 2A as well. Because of the general similarity of approach, Impacts AES2B, AES3, and AES4 would also be less than significant for Alternative 2, as described for the proposed Project and Alternative 1.

However, Alternative 2 would differ markedly from Alternative 1 as well as the proposed Project as regards Impact AES1 (*Potential for Permanent Damage to Designated Scenic Resources*); Alternative 2 has much greater potential to result in meaningfully adverse long-term changes in the appearance of the Creek/Lagoon corridor. In particular, construction along either the Alternative 2A or 2B alignment would require more extensive removal of mature riparian vegetation, which would be replaced with low-growing plantings suitable to provide long-term drivability with minimal vegetation maintenance. In areas where riparian growth is dense and well developed, the appearance of the Creek corridor would be substantially modified, creating a clear-cut right-of-way down the middle of the creek corridor and significantly reducing the unity and intactness of views. This outcome is inherent in the Alternative 2 approach (continuous axial alignment), and thus cannot be materially reduced while still meeting project objectives via the Alternative 2A/2B alignments. It is therefore considered not only significant and adverse but also unavoidable.

Under the No Project/No Action Alternative, there would be no modifications to the existing OTS infrastructure: no manhole rehabilitation, no realignment, no removal of the siphon and superfluous manholes, and in particular no new access route. As such, there would be no immediately foreseeable impact on any aspect of visual resources in the Project area. Over the longer term, there could be visual effects associated with separate future projects to address infrastructure needs along the OTS. These effects are considered speculative at the present time since the details of these projects cannot be predicted, but they could be substantial and adverse.

**Environmentally Superior Alternative for Aesthetics:** *Alternative 1 is considered environmentally superior for aesthetics, since it would (1) avoid the substantial and adverse aesthetic outcomes of Alternative 2 (extensive vegetation removal along the axis of the Creek/Lagoon corridor); and (2) avoid the aesthetic uncertainties associated with as-yet undefined projects that are expected to ultimately become necessary under the No Project/No Action Alternative.*

### Traffic and Transportation

The matrix below summarizes the proposed Project’s impacts related to transportation plans and policies; LOS; emergency response and evacuation; and public transit, bicycle, and pedestrian facilities.

Impact	Significance	Mitigation	Significance with Mitigation
TRAFFIC1 – Potential to Conflict with Local Circulation Elements, Congestion Management System Policies, or Other Applicable Traffic and Transportation Ordinances	No impact	<i>None required</i>	No impact
TRAFFIC2 – Potential to Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities	No impact	<i>None required</i>	No impact
TRAFFIC3 – Potential to Cause an Increase in Traffic on Local Roadways Substantial in Relation to the Existing V/C Ratio	No impact	<i>None required</i>	No impact
TRAFFIC4 – Potential to Exacerbate an Already Unacceptable LOS	Less than significant	<i>None required</i>	Less than significant
TRAFFIC5 – Potential to Lead to Inadequate Emergency Response or Evacuation Routes	Less than significant	<i>None required</i>	Less than significant
TRAFFIC6 – Potential to Decrease Performance or Safety of Public Transit, Bicycle, or Pedestrian Facilities	Less than significant	<i>None required</i>	Less than significant

Like the proposed Project, Alternatives 1 and 2 would result in no need to modify roadways and would generate extremely limited volumes of traffic during and following construction. Both action alternatives would include the same in-roadway components, and the construction process and trip generation for both open space and in-roadway portions of the project would be the same under both action alternatives. Both action alternatives would also incorporate the same construction-period Traffic Control Plan stipulations as the proposed Project. Over the longer term, both of the action alternatives would reinstate the same program of sanitary sewer inspections, cleaning, and maintenance analyzed above for the proposed Project.

For both action alternatives, the following impacts would be the same as for the proposed Project, and the two action alternatives are not considered to differ materially from one another.

- TRAFFIC1, *Potential to Conflict with Local Circulation Elements, Congestion Management System Policies, or Other Applicable Traffic and Transportation Ordinances*
- TRAFFIC2, *Potential to Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities*
- TRAFFIC3, *Potential to Cause an Increase in Traffic on Local Roadways Substantial in Relation to the Existing V/C Ratio*
- TRAFFIC4, *Potential to Exacerbate an Already Unacceptable LOS*
- TRAFFIC5, *Potential to Lead to Inadequate Emergency Response or Evacuation Routes*
- TRAFFIC6, *Potential to Decrease Performance or Safety of Public Transit, Bicycle, or Pedestrian Facilities*

Under the No Project/No Action Alternative, there would be no access construction, no manhole rehabilitation, and no realignment of the segment of the OTS above El Camino del Norte. There would thus be no impacts related to construction-generated traffic. Over the longer term, with no new access route, the City’s program of inspections, cleaning, and maintenance along the OTS would continue at the current level. There would thus be no long-term/post-construction impact related to traffic associated with expanded operational activities. With no rehabilitation of the aging manholes along the Project reach of the OTS, these facilities would continue to deteriorate; it would eventually become necessary to rehabilitate the manholes under a separate future project or projects, likely entailing at least some future work within roadways and some level of construction-related traffic. However, details remain speculative at this time and cannot be meaningfully compared.

**Environmentally Superior Alternative for Traffic and Transportation:** *The two action alternatives are considered equivalent in terms of traffic and transportation impacts. Because both action alternatives would have very limited and well understood outcomes for traffic and transportation, both are considered environmentally superior by comparison with the No Project/No Action Alternative, which would likely have longer term impacts that cannot be reasonably foreseen and thus cannot be meaningfully addressed at this time.*

**Air Quality and Greenhouse Gas Emissions**

The matrix below summarizes the proposed Project’s impacts related to air quality plans, criteria pollutant emissions, odors, and greenhouse gas emissions.

Impact	Significance	Mitigation	Significance with Mitigation
AIR1 – Potential to Conflict with or Obstruct an Applicable Air Quality Plan	No impact	<i>None required</i>	No impact
AIR2 – Potential to Violate an Air Quality Standard, or Substantially Contribute to Such a Violation, Now or in the Future	Construction: No impact Long-term: Less than significant	<i>None required</i>	Construction: No impact Long-term: Less than significant

Impact	Significance	Mitigation	Significance with Mitigation
AIR3 – Potential to Result in a Cumulatively Considerable Increase in Levels of any Criteria Pollutant for which the San Diego Air Basin is Currently in Non-Attainment	Construction and operations: Less than cumulatively considerable	<i>None required</i>	Construction and operations: Less than cumulatively considerable
AIR4 – Potential to Expose Sensitive Receptors to Substantial Pollutant Concentrations	Less than significant	<i>None required</i>	Less than significant
AIR5 – Potential to Create Objectionable Odors Affecting a Substantial Number of People	Construction period: Less than significant <b>Long-term: Benefit</b>	<i>None required</i>	Construction period: Less than significant <b>Long-term: Benefit</b>
AIR6 – Potential to Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases	No impact	<i>None required</i>	No impact
AIR7 – Potential to Generate Cumulatively Considerable Levels of Greenhouse Gas Emissions	Less than cumulatively considerable	<i>None required</i>	Less than cumulatively considerable

Construction of both action alternatives would involve heavy equipment use, haulage, and ground disturbance and thus would generate pollutants, including dust and exhaust gases as well as greenhouse gases. Although the location and footprint of the new access under the alternatives would differ somewhat from the proposed Project, the construction process would be essentially the same, and would incorporate the same environmental commitments for dust control and reduction of VOC and TAC emissions.

Because of the slight differences in footprint (i.e., acreage subject to vegetation removal and grading), criteria pollutant, GHG, and TAC emissions would vary slightly from the proposed Project. However, as with the proposed Project, emission levels under Alternatives 1 and 2 would be substantially below the applicable thresholds. Over the longer term, both action alternatives would slightly expand the scope of City sanitary sewer operations and maintenance by enabling the City to reinstate a full program of inspections, cleaning, and maintenance on the OTS below El Camino del Norte. Like the proposed Project, either action alternative would thus result in a slight increase in the generation of operational emissions. However, even with very conservative (worst-case) assumptions in place, modeling indicates that construction and operational emissions would be substantially below the applicable thresholds. Findings for all of the following impacts would therefore be the same under the two action alternatives as those identified for the proposed Project.

- AIR1, *Potential to Conflict with or Obstruct an Applicable Air Quality Plan*
- AIR2, *Potential to Violate an Air Quality Standard, or Substantially Contribute to Such a Violation, Now or in the Future*
- AIR3, *Potential to Result in a Cumulatively Considerable Increase in Levels of any Criteria Pollutant for which the San Diego Air Basin is Currently in Non-Attainment*
- AIR4, *Potential to Expose Sensitive Receptors to Substantial Pollutant Concentrations*
- AIR5, *Potential to Create Objectionable Odors Affecting a Substantial Number of People*

- AIR6, *Potential to Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases*
- AIR7, *Potential to Generate Cumulatively Considerable Levels of Greenhouse Gas Emissions*

Under the No Project/No Action Alternative, there would be no access construction, no siphon or manhole removal, no manhole rehabilitation, and no realignment of the segment of the OTS above El Camino del Norte. There would thus be no impact related to construction-generated criteria pollutants, GHGs, TACs, or odor emissions. At the same time, however, by leaving the existing siphon and all manholes remaining in place and unrehabilitated, the No Action/No Project Alternative would offer no benefit with regard to odor reduction. Moreover, as OTS infrastructure continues to age, repairs would eventually become imperative; the separate future project or projects would presumably entail construction with at least some potential to generate criteria pollutants, GHGs, and possibly also odors although the timing, extent, and specific nature of activities, and thus, the associated air quality and GHG impacts, is speculative and cannot be meaningfully analyzed at this time.

**Environmentally Superior Alternative for Air Quality and Greenhouse Gas Emissions:** *The two action alternatives are considered equivalent in terms of air quality and greenhouse gas impacts. Both action alternatives are evaluated as environmentally superior by comparison with the No Project/No Action Alternative, which would avoid short-term impacts related to air quality and greenhouse gas emissions but would fail to provide the odor-reduction benefit associated with removing the siphon, and would also likely have longer term emissions impacts due to future projects that cannot be reasonably foreseen and thus cannot be meaningfully addressed at this time.*

### Noise and Vibration

The matrix below summarizes the proposed Project’s impacts related to noise standards, noise-sensitive land uses, and groundborne vibration exposure.

Impact	Significance	Mitigation	Significance with Mitigation
NOISE1 – Potential for Noise Levels to Exceed Applicable Noise Standards during Project Construction	No Impact	<i>None required</i>	No impact
NOISE2 – Potential to Create a Substantial Increase in Ambient Sound Levels, Resulting in Disturbance to Noise Sensitive Land Uses during Project Construction	Less than Significant	<i>None required</i>	Less than significant
NOISE3 – Potential for Noise Levels to Exceed Applicable Noise Standards during Project Operation	Less than significant	<i>None required</i>	Less than significant
NOISE4 – Potential to Create a Substantial Increase in Ambient Sound Levels, Resulting in Disturbance to Noise Sensitive Land Uses during Project Operation	Less than significant	<i>None required</i>	Less than significant
NOISE5 – Potential for Exposure of Persons or Structures to Excessive Groundborne Vibration during Construction	Less than significant	<i>None required</i>	Less than significant

Impact	Significance	Mitigation	Significance with Mitigation
NOISE6 – Potential for Exposure of Persons or Structures to Excessive Groundborne Vibration during Operations	Less than significant	<i>None required</i>	Less than significant

Construction under both Alternative 1 and Alternative 2 would generate localized and comparatively short-term increases in noise and vibration, and both alternatives would incorporate commitments to keep in strict compliance with City ordinances limiting construction noise generation and the timing of equipment use. The potential for disturbance in the neighboring community could be slightly less under Alternative 2, since more of the work would occur in the interior of the Creek/Lagoon corridor, at a greater remove from residences and other noise-sensitive land uses, but the overall level of noise and vibration generation would be essentially the same. Findings for the following impacts would therefore be the same under the 2 action alternatives as those identified for the proposed Project.

- NOISE1, *Potential for Noise Levels to Exceed Applicable Noise Standards during Project Construction*
- NOISE2, *Potential to Create a Substantial Increase in Ambient Sound Levels, Resulting in Disturbance to Noise Sensitive Land Uses during Project Construction*
- NOISE5, *Potential for Exposure of Persons or Structures to Excessive Groundborne Vibration during Construction*

By expanding the City’s existing program of inspections, cleaning, and maintenance, both action alternatives would also slightly increase long-term generation of intermittent noise and vibration. However, the program of activities – and hence the added noise and vibration – would be the same under both alternatives. Findings for the following impacts would be the same as those identified for the proposed Project.

- NOISE3, *Potential for Noise Levels to Exceed Applicable Noise Standards during Project Operation*
- NOISE4, *Potential to Create a Substantial Increase in Ambient Sound Levels, Resulting in Disturbance to Noise Sensitive Land Uses during Project Operation*
- NOISE6, *Potential for Exposure of Persons or Structures to Excessive Groundborne Vibration during Operations*

Under the No Project/No Action Alternative, there would be no access construction, no manhole rehabilitation, and no realignment of the segment of the OTS above El Camino del Norte. There would thus be no impact related to construction noise or vibration. With no new access route, the City’s program of inspections, cleaning, and maintenance along the OTS would continue at the current level. There would thus be no impact related to increases in operational noise. Over the longer term, there would likely be a need for repairs under a separate future project or projects, but as identified above, details remain speculative at this time and cannot be meaningfully compared.

**Environmentally Superior Alternative for Noise:** *The 2 action alternatives are considered equivalent in terms of noise and vibration impacts. Both action alternatives are evaluated as environmentally superior by comparison with the No Project/No Action Alternative, which would avoid short-term impacts related to noise and vibration disturbance but would likely have longer term noise and vibration impacts that cannot be reasonably foreseen and thus cannot be meaningfully addressed at this time.*

### Hazards and Hazardous Materials

The matrix below summarizes the proposed Project’s impacts related to hazardous materials, emergency response and evacuation, and wildland fires.

Impact	Significance	Mitigation	Significance with Mitigation
Impact HAZ1 – Potential for Location on a Site that is Included on a List of Hazardous Materials Sites Compiled Pursuant to California Government Code Section 65962.5	No impact	<i>None required</i>	No impact
Impact HAZ2 – Potential to Create Hazard to Workers, the Public, or the Environment through the Routine Transport, Use, Disposal, or Accidental Release of Hazardous Materials	Construction period: Less than significant <b>Long-term: Benefit</b>	<i>None required</i>	Construction period: Less than significant <b>Long-term: Benefit</b>
Impact HAZ3 – Potential to Create Hazard Related to the Transport, Use, or Disposal of Hazardous Materials within 0.25 Mile of a School	Construction period: Less than significant Operation: No impact	<i>None required</i>	Construction period: Less than significant Operation: No impact
Impact HAZ4 – Potential to Create Health or Environmental Hazard Related to Discovery of Undocumented Hazardous Materials	Construction period: Less than significant Operation: No impact	<i>None required</i>	Construction period: Less than significant Operation: No impact
Impact HAZ5 – Potential to Interfere with an Adopted Emergency Response, Evacuation, and/or Hazardous Materials Response Plan	Construction period: Less than significant Operation: No impact	<i>None required</i>	Construction period: Less than significant Operation: No impact
Impact HAZ6 – Increased Risk of Wildland Fires and Associated Hazards	Significant	HAZ6.1: Require Implementation of Wildland Fire Risk Reduction Measures	Less than significant

Although some of the alignment details would differ, Alternatives 1 and 2 would be located in very close proximity to the alignment identified for the proposed Project. The construction process would be essentially the same under both action alternatives as under the proposed Project, and all of the same precautions would apply. The action alternatives would enable the same expanded program of inspections, cleaning, and maintenance as the proposed Project, and similar operational conditions would also apply. Consequently, findings for the following impacts would be the same under the 2 action alternatives as those identified for the proposed Project.

- Impact HAZ1, *Potential for Location on a Site that is Included on a List of Hazardous Materials Sites Compiled Pursuant to California Government Code Section 65962.5*
- Impact HAZ2, *Potential to Create Hazard to Workers, the Public, or the Environment through the Routine Transport, Use, Disposal, or Accidental Release of Hazardous Materials*
- Impact HAZ3, *Potential to Create Hazard Related to the Transport, Use, or Disposal of Hazardous Materials within 0.25 Mile of a School*
- Impact HAZ4, *Potential to Create Health or Environmental Hazard Related to Discovery of Undocumented Hazardous Materials*

- Impact HAZ5, *Potential to Interfere with an Adopted Emergency Response, Evacuation, and/or Hazardous Materials Response Plan*
- Impact HAZ6, Increased Risk of Wildland Fires and Associated Hazards

Under the No Project/No Action Alternative, there would be no access construction, no manhole rehabilitation, and no realignment of the segment of the OTS above El Camino del Norte. With no new access route, the City’s program of inspections, cleaning, and maintenance along the OTS would continue at the current level. There would thus be no immediately foreseeable construction-related or long-term impacts for items in this issue area.

However, as infrastructure continues to degrade, it would eventually become necessary to rehabilitate the aging manholes under a separate future project or projects, likely entailing at least some future work using and transporting small amounts of hazardous materials. Details remain speculative at this time and cannot be meaningfully compared.

**Environmentally Superior Alternative for Hazards and Hazardous Materials:** *The two action alternatives are considered equivalent in terms of impacts related to hazardous materials. Over the short term, the No Project/No Action alternative would entail no construction and thus would have a substantially reduced potential for impacts by comparison with the action alternatives; the No Project/No Action alternative is accordingly considered environmentally superior for hazardous materials over the short term. Over the longer term, as rehabilitation becomes increasingly imperative, some form of construction activity would be needed. As a result there would be some longer term potential for hazardous materials–related impacts under the No Project/No Action Alternative; however, the specifics cannot be reasonably foreseen or meaningfully addressed at this time. Since longer term impacts under the No Project/No Action Alternative cannot be foreseen or addressed in detail, while those of the 2 action alternatives would be limited, well understood, and effectively addressed by routine best practices, the 2 action alternatives are considered environmentally superior over the long term.*

**Utilities and Service Systems**

The matrix below summarizes the proposed Project’s impacts related to wastewater, stormwater, water, electricity, and solid waste facilities and infrastructure.

Impact	Significance	Mitigation	Significance with Mitigation
UTIL1 – Potential for Substantial Adverse Physical Effects on Existing Utilities Infrastructure	Construction period: No impact <b>Long-term: Benefit</b>	<i>None required</i>	Construction period: No impact <b>Long-term: Benefit</b>
UTIL2 – Potential for Exceedance of Applicable Wastewater Treatment Capacity or Requirements	No impact	<i>None required</i>	No impact
UTIL3 – Potential to Require New or Expanded Stormwater Facilities	No impact	<i>None required</i>	No impact
UTIL4 – Potential to Require Augmented Water Supply or New Water Entitlements	No impact	<i>None required</i>	No impact
UTIL5 – Potential to Result in Substantially Increased Demand for Electrical Power	No impact	<i>None required</i>	No impact

Impact	Significance	Mitigation	Significance with Mitigation
UTIL6 – Potential for Violation of Solid Waste Regulations	No impact	<i>None required</i>	No impact
UTIL7 – Potential to Exceed Landfill Capacity	No impact	<i>None required</i>	No impact

Construction of the 2 action alternatives would have very little potential to impact utilities: construction water use would be limited, electrical demand would be essentially nil, and solid waste generation would also be very limited, and both Alternative 1 and Alternative 2, like the proposed Project, would incorporate precautions to avoid conflicts with other utilities. Alternatives 1 and 2 would therefore have no construction-period impact related to adverse physical effects on existing utilities infrastructure, exceedance of applicable wastewater treatment capacity or requirements, need for augmented water supply or new water entitlements, increased demand for electrical power, violation of solid waste regulations, or exceedance of landfill capacity.

Over the longer term, Alternatives 1 and 2 would both enable the City to reinstate a comprehensive program of sanitary sewer inspections, cleaning, and maintenance along the full length of the OTS, resulting in a substantial long-term benefit to the function and reliability of the City’s sanitary sewer infrastructure.

The No Project/No Action Alternative would entail no construction and thus would have no immediate construction-period impact on existing utilities or service systems. Over the longer term, without access, the City would remain unable to implement a full program of cleaning and maintenance; these activities would continue at their current restricted level. There would thus be no change in utilities demand and no other impacts related to utilities as a result of inspections, cleaning, or routine maintenance. At the same time, however, without rehabilitation, aging infrastructure along the project reach would continue to deteriorate, and with cleaning and maintenance continuing on a restricted basis, additional risks to sewer system integrity could also arise, particularly as some manholes are already operating in a near-surge condition. The long-term outlook for OTS function and reliability under the No Project/No Action Alternative is thus adverse; failure, spills, and/or overflows are all reasonably foreseeable, and since this type of impact could not be averted without a separate, discretionary future action, these outcomes also considered unavoidable under the No Project/No Action condition.

**Environmentally Superior Alternative for Utilities and Service Systems:** *Of the alternatives, No Project/No Action is considered the least desirable from the perspective of utilities and service systems since it would result in significant and unavoidable adverse impacts on sanitary sewer function and reliability. Alternatives 1 and 2 are evaluated as equivalent, since neither would have significant adverse impacts on utilities or service systems over either the short- or long-term, and both would result in a substantial long-term benefit to sanitary sewer infrastructure; both are thus superior to No Project/No Action as regards outcomes for utilities and service systems.*

## Identification of Environmentally Superior Alternative

The resource-specific results in Table 16-1 were integrated to identify the alternative offering the best overall outcome across all affected resources, summarized in Table 16-3 on the next page. Table organization emphasizes resource topics for which there is a meaningful difference among the alternatives.

**Table 16-3: Environmentally Superior Alternative**

<b>Resource</b>	<b>Environmentally Superior Alternative</b>
Hydrology and Water Quality	Alternative 1
Biological Resources	Alternative 1
Aesthetics	Alternative 1
Cultural Resources	Alternative 2
Utilities and Service Systems	Action Alternatives
Transportation and Traffic	Short-term: No Project/No Action Alternative Long-term: Action Alternatives
Noise and Vibration	Short-term: No Project/No Action Alternative Long-term: Action Alternatives
Air Quality and Greenhouse Gas Emissions	Short-term: No Project/No Action Alternative Long-term: Action Alternatives
Hazards and Hazardous Materials	Short-term: No Project/No Action Alternative Long-term: Action Alternatives

As Table 16-3 shows, Alternative 1 is superior for hydrology and water quality, biological resources, and aesthetics, and would be essentially equivalent to Alternative 2 for utilities and service systems, taking into account both adverse impacts (limited under both action alternatives) and benefits to sanitary sewer system function and reliability (substantial under both action alternatives).

The No Project/No Action Alternative would avoid immediate construction-period impacts related to transportation and traffic, noise and vibration, air quality (criteria pollutant emissions), greenhouse gas emissions, and hazardous materials use. Over the longer term, however, some form of intervention would foreseeably be required to address continued infrastructure degradation and potential failures, spills, and overflows along the project reach of the OTS. As a result, construction of one or more future projects to address these issues is a reasonably foreseeable outcome of the No Project/No Action condition. The details of these future projects cannot be foreseen at this time, so their impacts cannot be meaningfully assessed; the 2 action alternatives offer greater clarity regarding long-term future outcomes and are thus considered superior to the No Project/No Action alternative over the long term for these resources.

Since Alternative 1 is superior for 3 resources considered particularly important for the Escondido Creek and San Elijo Lagoon (hydrology and water quality, biological resources, and aesthetics), and is essentially equivalent to Alternative 2 for all other resources, Alternative 1 is identified as the environmentally superior alternative.

### **Comparison between Environmentally Superior Alternative and Proposed Project**

The environmentally superior alternative (Alternative 1) and the proposed Project would have essentially equivalent levels of impact for all issue areas under evaluation, as summarized above in Table 16-1. However, consistent with the City’s commitment to bring forward an approach that effectively avoids and minimizes impacts on Creek and Lagoon resources, the proposed Project would offer several advantages over Alternative 1. This is detailed in Table 16-2 and summarized in Table 16-4 on the next page.

**Table 16-4: Impact Acreages – Comparison between Alternative 1 and Proposed Project**

Habitat	Anticipated Impacts (Acres)	
	Proposed Project	Alternative 1
<b><i>Vegetation Community/Land Cover Type</i></b>		
Jurisdictional habitat	3.47	3.80
Sensitive upland habitat	1.00	0.61
Total impact in sensitive habitat:	4.47	4.41
<b><i>Nesting Habitat for Special-Status Birds</i></b>		
Belding's Savannah Sparrow	0.23	0.23
Coastal California Gnatcatcher	0.30	0.19
Least Bell's Vireo	0.72	0.59
Light-footed Ridgway's Rail	0.08	0.37
Total impact in special-status bird nesting habitat:	1.33	1.38

In summary, the proposed Project would offer reduced impacts on key habitat resources (jurisdictional habitat and nesting habitat for Belding's Savannah Sparrow and Light-footed Ridgway's Rail) by comparison with Alternative 1, would have slightly increased impacts on nesting habitat for Coastal California Gnatcatcher and Least Bell's Vireo, and would have essentially the same short- and long-term outcomes for all other resources.