5.0 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The *CEQA Guidelines* mandate that the EIR must address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (*CEQA Guidelines* Section 15126.2[c]). An impact would fall into this category if:

- The project involves a large commitment of nonrenewable resources;
- The primary and secondary impacts of the project generally commit future generations to similar uses;
- The project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project results in wasteful use of energy).

Construction of the proposed Carbon Canyon Dam Sewer Pipeline project would be below ground and would not change the designation of the above ground land uses. The first portion of the proposed pipeline is within land owned by the ACOE. The ACOE leases a portion of to Orange County for use as Carbon Canyon Regional Park and restricts access to the remaining portion because of its proximity to Carbon Canyon Dam. These land uses are expected to remain as is for the foreseeable future. Most of the remaining portion of the proposed pipeline is within private property owned by Aera Energy; this land is zoned for residential development, tentatively named the Brea Central Development, but its interim use is as a Christmas tree farm. This residential development is consistent with the *City of Brea General Plan* and the proposed pipeline alignment follows what the most recent site plans have identified as future residential streets.

The proposed Expanded Service Area Option would provide capacity for areas that have already been planned for development, specifically, the proposed Aera Energy Master Planned Community in unincorporated Los Angeles County. This option would require an increase in the pipe size from 27 inches to a minimum of 30 inches. A pipe size of up to 36 inches may be required to accommodate flows but would not increase capacity. Aera has stated that the EIR for the Aera Master Planned Community (which would contain a maximum of 3,600 dwelling units) would study several different wastewater alternatives, including utilizing OCSD wastewater facilities, and other wastewater options. Expansion of the OCSD's service boundary would provide a water quality and energy saving option for the Aera Master Planned Community. The proposed Aera Energy Master Planned Community would commit the project site and associated off-site components to the uses identified in the project description for the foreseeable future, and thereby limit the range of other uses that could, in the future, be implemented on the subject properties.

Note that the proposed Aera Energy Master Planned Community is undergoing environmental review. In addition, the expanded service area also would include the Firestone Boy Scout camp in unincorporated Los Angeles County and the Sleepy Hollow portion of the City of Chino Hills in San Bernardino County. The expansion of the service boundary creates the potential for future development in those areas, though no such projects have been proposed to date, and any proposed development project in those areas would require its own separate environmental review.

Determining whether the proposed project may result in significant irreversible environmental changes requires a determination of whether key resources would be degraded or destroyed such that there would be little possibility of restoring them. No such degradation or destruction of resources is anticipated as a result of the proposed project. The proposed project is consistent with applicable goals and policies of the *City of Brea General Plan*, and will enhance City and regional wastewater infrastructure. Sensitive natural resources (including the Federally listed least Bells vireo) exist at the project site; however, project design features and mitigation measures would minimize the construction-related impacts to the least Bell's vireo's habitat to less than significant. Following the end of construction activities, the site would be restored and no important natural resources would be lost as a result of project implementation.

Various natural resources (construction materials and energy resources) would be used in the construction of the project, but their use is not expected to result in significant long-term shortfalls in the availability of these resources. Once operational, the proposed project would not consume any energy because the pipeline would make use of gravity flows. Moreover, the proposed project will facilitate the conservation of energy by allowing OCSD to abandon the existing Carbon Canyon Pump Station, which currently utilizes two 400-gpm submersible pumps. Each pump has a 25-horsepower motor and boosts a total dynamic head of 140 feet. The proposed project would permanently eliminate the need for a pump station in this location.

GROWTH-INDUCING IMPACTS OF THE PROPOSED ACTION

CEQA requires a discussion of the ways in which a proposed project could be growth-inducing. The *CEQA Guidelines* identify a project as growth-inducing if it would foster economic growth, population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment [*CEQA Guidelines* Section 15126.2(d)]. For example, new employees from commercial and industrial development and new population from residential development represent direct forms of growth. These direct forms have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could also indirectly induce growth by reducing or removing barriers to growth, or by creating a condition that attracts additional population or new economic activity. However, a project's potential to induce growth does not automatically result in growth. Growth can happen only through capital investment in new economic opportunities by the private or public sectors. Development pressures are a result of economic investment in a particular locality. These pressures help to structure the local politics of growth and the local jurisdiction's posture on growth management and land use policy. At the local level, growth is largely regulated by the land use policies of local municipalities and counties.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, the growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population *in excess* of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as SCAG. Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth *beyond* the levels currently permitted by local or regional plans and policies.

In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way. Although this project does propose to increase the service capacity of the sewer system, it in no way proposes to

increase those capacities beyond those planned for in the associated general plans, as outlined in Section 4.1, *Land Use and Relevant Planning*. The potential of the project to produce significant growth-inducing impacts is considered significant and unavoidable due to the existing local general plans and planning goals, objectives, and aspects of growth, and policies that are outlined in Section 4.1, *Land Use and Relevant Planning*.

LAND USE AND RELEVANT PLANNING

The proposed project has the potential to induce growth in the planning areas covered by the Brea, Chino Hills, and Los Angeles County general plan EIRs. Note that the *Brea General Plan EIR* includes unincorporated areas of the County of Orange that could be served by the proposed pipeline (e.g. the 321 acre Aera Master Planned Community in Orange County). Potentially significant impacts from future population growth and development have been identified in these documents and are summarized below:

City of Brea General Plan EIR (2003)

The *Brea General Plan EIR* identifies the following impacts as potentially significant after mitigation:

- Increased traffic volumes associated with ambient growth and potential future development in Carbon Canyon.
- Air pollution emissions from new vehicle trips and stationary sources that will exceed SCAQMD thresholds for carbon Monoxide, particulate matter, and reactive organic compounds.

City of Chino Hills General Plan EIR (1994)

The *Chino Hills General Plan EIR* identifies the following impacts as potentially significant after mitigation:

- Exposure of additional people and structures to geologic hazards, including earthquakes.
- Air pollution emissions from new vehicle trips and stationary sources that will exceed SCAQMD thresholds.
- Unpredictable drought conditions may decrease water supplies available to city.
- Some properties in Chino Hills may be subject to flooding.
- Water runoff will increase with new development.
- Urbanization of undeveloped lands will result in the reduction of natural plant and animal species.
- The *Chino Hills General Plan* will not meet SCAG's jobs–housing ratio.
- The *Chino Hills General Plan* will result in development, resulting in an increase of vehicle trips in the city.
- The General and Specific Plans allow urban uses on the City's agricultural preserve.
- Implementation of the General and Specific Plans will result in a need for additional parkland.

County of Los Angeles General Plan EIR (1979)
County of Los Angeles General Plan, Supplement to the Final EIR (1980)

The *County of Los Angeles General Plan EIR* (and supplement) identifies the following impacts as potentially significant after mitigation:

- Encroachment of development into fault zones and unstable slopes.
- Encroachment of development into areas with soils constraints for development.
- Encroachment of development into floodplains, watershed areas.
- Encroachment of development into high fire hazard zones.
- Increase in noise levels.
- Encroachment of development into Significant Ecological Areas.
- Encroachment of development into sand and gravel and petroleum resource areas.
- Encroachment of development into existing agriculture or prime land areas.
- Encroachment of development into cultural resource areas.
- Encroachment of development into scenic open space and change in scale on recycled land.
- Increase in public service costs.
- Change in vehicle miles traveled.
- Increase in waste generation.

The analysis above indicates that the proposed project could induce a number of potentially significant impacts as a result of removing an obstacle to growth (i.e. the Carbon Canyon Pump Station). The areas that would be served by the 27 inch pipe or the 30-36 inch pipe (Expanded Service Area Option) are summarized in Table 3.1, *Projected Wastewater Service Demand* in Section 3.0, *Project Description*. The projects are described by projected wastewater volume and the jurisdiction in which they are located. However, the removal of an obstacle to growth would not necessarily induce population growth. Nonetheless, the potential for growth inducing impacts is considered significant and unavoidable.

Any specific analysis of impacts of the proposed project in relation to those identified in the applicable General Plan EIRs is speculative. Section § 15145 of the *CEQA Guidelines* states, "[i]f, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

POPULATION

The population of the County of Orange was 2,975,397 as of January 1, 2003 and increased by 1.4% to 3,017,298 as of January 1, 2004. The California Department of Finance estimates an increase in County population to 3,031,440 in the year 2005, and to 3,168,942 in the year 2010.[1]

The population of the City of Brea was 37,885 as of January 1, 2003 and increased by 2.8% to 38,960 as of January 1, 2004.[2] Therefore, the population of the City of Brea increased at rate that was double that of the County over the past year. In 2004, the population of the City of Brea represented 1.3% of the total population of the County of Orange. The California Department of Finance estimates an increase in County population to 3,031,440 in the year 2005, and to

[1] Center for Demographic Research, "Orange County Facts and Figures", March 2002.
[2] California Department of Finance, "City/County Population Estimates, with Annual Percent Change, January 1, 2003 and 2004," May 2004.

3,168,942 in the year 2010.[3]

The proposed project may have the potential to indirectly accommodate growth because it could expand OCSD's wastewater infrastructure. However, although the expansion of the OCSD's service area boundary into unincorporated Los Angeles County and the City of Chino Hills may be characterized as reducing a barrier to growth, implementation of the project may not necessarily accommodate growth because service boundary expansion would not necessarily result in the actual extension of wastewater infrastructure to serve those areas. In addition, there are other options to obtain sewer service for the Los Angeles County and Orange County areas, (1) upgrading the Brea infrastructure to accommodate the additional flow and (2) pumping the effluent over the hills to Los Angeles County and improve the Los Angeles County Sanitation District's infrastructure to accommodate the increase in potential flow.

HOUSING

As of January 1, 2004, the California Department of Finance estimated approximately 1,003,929 housing units with a vacancy rate of 3.57% in the County of Orange, and 14,292 housing units with a vacancy rate of 1.94% in the City of Brea.[4] The proposed project would occur within an undeveloped area and would not construct any new housing or relocate of any existing housing.

EMPLOYMENT

The proposed project site is currently undeveloped land, both publicly and privately owned. Implementation of the proposed pipeline project would generate minor short-term and nominal long-term employment within OCSD. Project implementation would not appreciably affect the projected employment figure of 1,667,778 jobs in the year 2005 for the County of Orange.[5]

JOBS–HOUSING BALANCE

Information obtained from SCAG indicates that the City of Brea's most recent jobs–housing ratio was 2.85. This ratio indicates that more job positions exist within the City than housing units.

The proposed sewer pipeline project would not affect *General Plan* or *Zoning Map* designations for the project area and, as such, would not affect SCAG's current jobs–housing balance projections for the City.

The proposed OCSD Expanded Service Area Option could accommodate planned residential development in and around the City of Brea. The proposed 2,700 dwelling-unit Aera Master Planned Community in unincorporated Los Angeles County would be within the expanded service boundary. Such a development has the potential to partially alleviate the job–housing ratio imbalance in the City of Brea and although many uncertainties about the proposed project remain at this time. Moreover, any new development—residential or otherwise—within the proposed expanded service area would be subject to separate environmental review.

WATER SUPPLY

The proposed project is a wastewater pipeline and therefore would not need a source of water

[3] Center for Demographic Research, "Orange County Facts and Figures," March 2002.
[4] California Department of Finance, Report E-5, "City/County Population and Housing Estimates, 2003 and 2004," July 2004.
[5] Center for Demographic Research, "Orange County Facts and Figures," March 2002.

supply. The Expanded Service Area Option of the proposed project could serve new development in unincorporated Los Angeles County and the City of Chino Hills. Both the *Los Angeles County General Plan EIR* and the *Chino Hills General Plan EIR* have anticipated new developments in the proposed expanded OCSD service area that overlap with their respective jurisdictions, and both have set forth compliance goals and policies for new development in regards to water supply. In addition, any new residential development of 500 units or more is legally required to conduct a project-specific water supply assessment as part of the environmental review process. Therefore, any future developments in the proposed OCSD expanded service area would have to address water supply during the environmental review process.

CUMULATIVE IMPACTS

This section addresses the cumulative impacts associated with the proposed sewer pipeline project. In accordance with *CEQA Guidelines* Section 15130, an EIR shall address cumulative impacts of a project when the project's incremental cumulative effect is considerable, as defined in Section 15065(c). The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but need not provide as much detail as for the effects attributable to the project alone. The EIR need not address cumulative impacts to which the project does not contribute. The discussion should be guided by the standards of practicality and reasonableness.

The following elements are necessary in an EIR for an adequate discussion of cumulative impacts.

(1) Either:

- A list of relevant past, present and probable future projects producing related or cumulative impacts, including (if necessary) those projects outside the control of the agency, or

- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact;

(2) A summary of the expected environmental effects to be produced by those projects, with specific reference to additional information stating where that information is available; and

(3) A reasonable analysis of the cumulative impacts of the relevant projects that examines reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

GEOGRAPHIC SCOPE

This EIR evaluates cumulative impacts on both, a local and regional level. The local analysis focuses primarily on cumulative impacts that may result with implementation of the proposed sewer pipeline along with other proposed projects within the City of Brea, the City's Sphere of Influence, and the proposed OCSD expanded service area boundary. The regional analysis focuses on cumulative impacts as a result of implementation of the proposed sewer pipeline, as well as other existing and proposed developments in the vicinity of the project and the proposed expanded service area boundary.

The geographic area for each impact varies, depending on the nature of the impact and whether it is regional (such as air quality) or local (such as noise). As discussed in the *Growth-Inducing*

Impacts section on page 5.0-2, the project may facilitate new development in unincorporated southeastern Los Angeles County and the City of Chino Hills in San Bernardino County.

CUMULATIVE IMPACT METHODOLOGY

The local cumulative impact discussion is based primarily on buildout of the *City of Brea General Plan*, *Zoning Map* and Subdivision Ordinance, and *General Plan EIR*. These documents are noted in the *Incorporation by Reference* section of Section 2.0, *Introduction and Purpose*. The cumulative projects identified represent the currently known probable projects at the time of publication of the Draft EIR.

Cumulative impacts are discussed in terms of project impacts in combination with the anticipated impacts of future development (including approved and planned development within the project area and surrounding affected area).

Quantification of cumulative impacts is difficult, as it requires speculative estimates of impacts that are limited by factors such as:

- The geographic diversity of impacts (impacts of future development may affect different areas);
- Variations in time of impacts (many project impacts would occur at different times, and would be reduced or removed before other impacts occurred);
- Complete data for all future development; and
- Changes in data for future development may change following subsequent approvals.

However, every attempt has been made in this EIR to make a qualitative judgment of the combined effects of, and relationships between, all identifiable and foreseeable cumulative projects.

CEQA notes that the discussion of cumulative impacts should be guided by standards of practicality and reasonableness (*CEQA Guidelines* Section 15130 (b)). Only those impacts that might compound or interrelate with those of the project at hand require evaluation. The potential cumulative impacts of the proposed project, in combination with cumulative development projects, are discussed below. The precise impacts of future development projects have been or will be analyzed in other appropriate environmental documentation (depending on the state of approval of each the project).

CUMULATIVE PROJECTS (LOCAL PROJECTS)

In addition to incorporating by reference the cumulative impact discussion from the *City of Brea General Plan EIR*, this EIR has identified the following specific cumulative projects in the local vicinity of the project site to ensure an adequate assessment of local cumulative impacts.

APPROVED PROJECTS

The following projects are in various stages of construction or entitled but not yet built:

- Artisan Walk (106 homes on 14.5 acres)
- Berkeley Townhomes (83 condominiums on 3.7 acres)

- Birch Hills (363 homes on 91.8 acres)
- Olinda Ranch (639 homes on 384 acres)
- Tomlinson Park (231 homes on 38 acres)

SUBMITTED PROPOSALS

The following projects have submitted applications that are under review by the City of Brea or the County of Orange:

- Aera Energy (3,000–3,600 homes on 3,000 acres – Approximately 300 acres are in Brea's Sphere of Influence and the remainder is in Los Angeles County; note that the application is being processed through the County of Orange)
- Brea Cañon Estates (81 homes on 38.8 acres)
- Hover Development (55 homes on 13.4 acres)
- Pacific Highland (34 homes on 20.6 acres)
- Tonner Hills Planned Community (914 homes on 789 acres, including mixed use; that application is being processed through the County of Orange)

POTENTIAL FUTURE DEVELOPMENTS

The following projects are identified potential developments for which no application is yet on file with the City or County:

- Brea Cañon Oil (in Tonner Canyon) (461 homes on 550 acres)
- Greystone Homes (85 homes on 40 acres)
- Hartley Center Specific Plan (1,000 dwelling units, with assisted living, office, and mixed use commercial components on 120 acres)

LOCAL CUMULATIVE IMPACTS

LAND USE AND RELEVANT PLANNING

The proposed project would have no significant cumulative land use or relevant planning impact, as the project is consistent with the *City of Brea General Plan*. Mitigation of cumulative land use impacts are best accomplished by area-wide mitigation programs that conform to the adopted zoning, *General Plan* designations, and zoning, and by implementing project-specific mitigation measures, where appropriate.

GEOLOGY, SOILS, AND SEISMICITY

The cumulative effects related to earth resources resulting from the proposed project and development in the vicinity of the proposed project are short-term increases in soil erosion due to project excavation, backfilling and grading activities. These impacts are anticipated to be mitigated by enforcing proper erosion protection measures during construction of the proposed projects, and would be mitigated on a project-by-project basis. In addition, sites with unsuitable development conditions such as liquefaction and seismic hazards are best mitigated individually. The proposed project would comply with the *Uniform Building Code* and all erosion control measures established by the City. The proposed project is not anticipated to negatively add to the cumulative impacts of the local area with regards to geology, soils, and seismicity.

HYDROLOGY AND WATER QUALITY

Cumulative impacts with regards to hydrology and water quality would primarily result from off-site runoff containing urban pollutants. However, as previously stated, the proposed project would incorporate protection measures to avoid hydrology and water quality impacts during operation of the pipeline. All site runoff would be directed to appropriate storm drains via an on-site local drainage system, ultimately being discharged into the Pacific Ocean via the Santa Ana River. Local cumulative impacts in this regard are anticipated to be less than significant.

AIR QUALITY

As stated in Section 4.4, *Air Quality*, the proposed project may result in short-term dust and construction-related emissions. However, the proposed project would include the abandonment of the existing Carbon Canyon Pump Station, which currently utilizes two 400-gpm submersible pumps. Each pump has a 25-horsepower motor and boosts a total dynamic head of 140 feet. The proposed project will permanently eliminate the need for a pump station in this location and therefore result in a net savings of energy at the site over the long run. The abandonment of the pump station would eliminate the demand for fossil fuel based energy to pump wastewater at the site. Local cumulative impacts in this regard are anticipated to be less than significant.

NOISE

Short-term noise from the proposed project may result from constructed-related activities, including trenching and micro-tunneling. Potential long-term noise associated with the proposed project is expected to negligible because the proposed pipeline would be both gravity-fed and underground. Local cumulative impacts in this regard are anticipated to be less than significant.

CULTURAL RESOURCES

The proposed project does not cross any areas known to contain any archaeological, historic, or paleontological resources. A qualified archaeologist and a qualified paleontological monitor would be on-site during the trenching phase to monitor activities for potential impacts on cultural resources.
Therefore, local cumulative effects on cultural resources are expected to be less than significant.

AESTHETICS, LIGHT, AND GLARE

Short-term construction impacts would change the aesthetic character of the project site, but mitigation measures would reduce impacts to less than significant. The proposed project would be underground and will therefore not have any long-term aesthetic impacts. No lighting would be included in the project and therefore no impacts from light or glare would occur. Local cumulative impacts in this regard are anticipated to be less than significant.

POPULATION AND HOUSING

The proposed project would not accommodate population growth or add or subtract dwelling units. The Expanded Service Area Option add areas in unincorporated Los Angeles County and the City of Chino Hills in San Bernardino County to the OCSD service area. Some of these areas are undeveloped, and adding them to the service area would create the potential for future extensions of wastewater infrastructure into these areas.

However, the proposed project would not change any land use designations in these areas, nor

would it include the extension of OCSD wastewater infrastructure into these areas, both of which would require separate environmental reviews. Therefore, local cumulative impacts on population and housing are anticipated to be less than significant.

BIOLOGICAL RESOURCES

Short-term construction impacts would result in the loss of existing habitat. Mitigation has been incorporated into the project that would replace lost habitat at a ratio of 3:1. Habitat for the Federally listed least Bell's vireo would not be impacted by the proposed project. Long-term impacts are anticipated to be less than significant with mitigation. Therefore, local cumulative impacts on biological resources are anticipated to be less than significant.

TRAFFIC

The proposed project would generate construction-related traffic during the construction phase. Mitigation measures to lessen the impact from this construction-related traffic have been incorporated into the project. The long-term impacts on traffic from the proposed project are anticipated to be less than significant. Therefore, local cumulative impacts on traffic are anticipated to be less than significant.

REGIONAL CUMULATIVE IMPACTS

The proposed project is not considered a significant regional cumulative impact because it is consistent with *the County of Orange General Plan*, the *County of Los Angeles General Plan*, and the *City of Chino Hills General Plan*. Mitigation of cumulative land use impacts is best accomplished by region-wide mitigation programs that conform to the adopted general plan designations, and zoning, and by implementation of project-specific mitigation measures where appropriate.

LAND USE AND RELEVANT PLANNING

The proposed project would have no significant regional cumulative land use or relevant planning impact because it is consistent with the *City of Brea General Plan*. Mitigation of cumulative land use impacts are best accomplished by area-wide mitigation programs that conforming to the adopted General Plan designations and zoning, and by implementation of project-specific mitigation measures where appropriate.

The Expanded Service Area Option has the potential to induce regional growth and development on land that is currently undeveloped. The expanded service boundary would incorporate two large tracts of undeveloped land in unincorporated Los Angeles County (2,614-acre Aera Energy property and 981-acre Firestone Boy Scout camp) and an 80-acre portion of the City of Chino Hills in San Bernardino County known as Sleepy Hollow into the OCSD service area. Aera Energy has proposed to develop its land into large residential development, tentatively estimated at 2,700 dwelling units. This proposal is consistent with the *County of Los Angeles General Plan* and is currently undergoing a separate environmental review. The Firestone Boy Scout camp is currently zoned open space and no development proposals have been put forth at this time for that property. Any proposals for future development of the Firestone Boy Scout camp property would require separate environmental review. Sleepy Hollow is zoned single-family residential and consists of a number of existing residences that currently use septic sewage systems. No development proposals have been put forth at this time for new development in Sleepy Hollow and any proposals for future development would require separate environmental review.

The Expanded Service Area Option would not change any land use designations, nor would it

include the extension of wastewater infrastructure into the expanded area. Any proposals to change land use designations in the expanded service areas and/or extend wastewater infrastructure into the expanded service area would require separate environmental reviews.

GEOLOGY, SOILS, AND SEISMICITY

The cumulative effects related to earth resources resulting from the proposed project and development in the vicinity of the proposed project are short-term increases in soil erosion due to excavation, backfilling, and grading activities. These impacts are anticipated to be mitigated by enforcing proper erosion protection measures during construction of the proposed project, and would be mitigated on a project-by-project basis. In addition, sites with unsuitable development conditions such as liquefaction and seismic hazards are best mitigated individually. The proposed project would comply with the *Uniform Building Code* and all erosion control measures established by the City. The proposed project is not anticipated to negatively add to the cumulative impacts of the region with regards to geology, soils, and seismicity.

HYDROLOGY AND WATER QUALITY

Cumulative impacts with regards to hydrology and water quality would primarily result from off-site runoff containing urban pollutants. However, as previously stated, the proposed project would incorporate protection measures to avoid hydrology and water quality impacts during operation of the pipeline. All site runoff would be directed to appropriate storm drains via an on-site local drainage system, ultimately being discharged into the Pacific Ocean via the Santa Ana River. Regional cumulative impacts in this regard are anticipated to be less than significant.

AIR QUALITY

As stated in Section 4.4, *Air Quality*, the proposed project may result in short-term dust and construction-related emissions. However, the proposed project would include the abandonment of the existing Carbon Canyon Pump Station, which currently utilizes two 400-gpm submersible pumps. Each pump has a 25-horsepower motor and boosts a total dynamic head of 140 feet. The proposed project will permanently eliminate the need for a pump station in this location and therefore result in a net savings of energy at the site over the long run. The abandonment of the pump station would eliminate the demand for fossil fuel based energy to pump wastewater at the site. Regional cumulative impacts to air quality are anticipated to be less than significant.

NOISE

Short-term noise from the proposed project may result from constructed-related activities, including trenching and micro-tunneling. Potential long-term noise associated with the proposed project is expected to negligible because the proposed pipeline would be both gravity-fed and underground. Regional cumulative impacts to noise are anticipated to be less than significant.

CULTURAL RESOURCES

The proposed project does not cross any areas known to contain any archaeological, historic, or paleontological resources. A qualified archaeologist and a qualified paleontological monitor would be on-site during the trenching phase to monitor activities for potential impacts on cultural resources. Therefore, regional cumulative effects to cultural resources are expected to be less than significant.

AESTHETICS, LIGHT, AND GLARE

Short-term construction impacts would change the aesthetic character of the project site, but mitigation measures would reduce impacts to less than significant. The proposed project would be underground and will therefore not have any long-term aesthetic impacts. No lighting would be included in the project and therefore no impacts from light or glare would occur. Regional cumulative impacts in this regard are anticipated to be less than significant.

POPULATION AND HOUSING

The proposed project would not accommodate population growth or add or subtract dwelling units. The Expanded Service Area Option add areas in unincorporated Los Angeles County and the City of Chino Hills in San Bernardino County to the OCSD service area. Some of these areas are undeveloped, and adding them to the service area would create the potential for future extensions of wastewater infrastructure into these areas.

However, the proposed project would not change any land use designations in these areas, nor would it include the extension of OCSD wastewater infrastructure into these areas, both of which would require separate environmental reviews. Therefore, regional cumulative impacts on population and housing are anticipated to be less than significant.

BIOLOGICAL RESOURCES

Short-term construction impacts would result in the loss of existing habitat. Mitigation has been incorporated into the project that would replace lost habitat at a ratio of 3:1. Habitat for the Federally listed least Bell's vireo would not be impacted by the proposed project. Long-term impacts are anticipated to be less than significant with mitigation. Therefore, regional cumulative impacts to biological resources are anticipated to be less than significant.

TRAFFIC

The proposed project would generate construction-related traffic during the construction phase. Mitigation measures to lessen the impact from this construction-related traffic have been incorporated into the project. The long-term impacts on traffic from the proposed project are anticipated to be less than significant. Therefore, regional cumulative impacts to traffic are anticipated to be less than significant.