D.C. Tillman Water Reclamation Plant: Japanese Garden Discharge Reuse

Initial Study/Negative Declaration

City of Los Angeles – LA Sanitation and Environment

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MBC

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Executive Summary

Project Title

D.C. Tillman Water Reclamation Plant: Japanese Garden Discharge Reuse Project

Lead Agency

City of Los Angeles

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Project Location

6100 Woodley Avenue, Encino, CA 91406

Community Plan Area

Encino-Tarzana

General Plan Designation

Public Facilities

Zoning

PF

Council District

6 – Nury Martinez

Project Overview

The City of Los Angeles (City), acting by and through the Department of Public Works, Los Angeles Sanitation and Environment (LASAN), and the Los Angeles Department of Water and Power (LADWP), proposes to change the place of use and purpose of use of up to 4,820 acre-feet per year (AFY) of

recycled water[1] from the Donald C. Tillman Water Reclamation Plant (DCTWRP; the proposed Project). LADWP is the City's agency responsible for managing and controlling all of the City's water rights. LASAN is the owner and operator of the DCTWRP.

A portion of the recycled water from the DCTWRP is discharged into the Japanese Garden Lake and then the flow enters the Los Angeles River channel downstream of Sepulveda Dam. Under the proposed Project, water from the DCTWRP that currently flows from the Japanese Garden Lake to the discharge downstream of the Sepulveda Dam would instead be rerouted back to DCTWRP for additional treatment. This will enable the City to not only maintain the Japanese Garden, but also send advanced purified recycled water to the Pacoima Spreading Grounds and the Hanson Spreading Grounds in the San Fernando Groundwater Basin (SFB) to enhance local water supplies. Both of the spreading ground facilities are located approximately 5 miles northeast of the DCTWRP. Diverting the discharge flow from the Japanese Garden would reduce flow in the Los Angeles River downstream of Sepulveda Dam, but would have no effect to the Sepulveda Basin.

The City is currently implementing the Los Angeles Groundwater Replenishment Project to meet the goals for indirect potable reuse set by the Urban Water Management Plan. The Final EIR for the Groundwater Replenishment Project was certified in November 2016 (SCH 2013091023). Recycled water produced by DCTWRP is currently used in several ways. Approximately 3.0 million gallons per day (MGD) is needed for various in-plant processes. An average of approximately 1.6 MGD is currently used by LADWP customers for non-potable reuse through the San Fernando Valley recycled water system. A significant majority of the recycled water produced from DCTWRP is directed through a network of pipes to various water features located in the Sepulveda Basin. Recycled water from these water features, which include the Japanese Garden Lake, Lake Balboa, and the Wildlife Lake, ultimately discharges to the Los Angeles River at various locations. The Groundwater Replenishment Project will use recycled water produced at DCTWRP for groundwater replenishment at the HSG and PSG. When the Groundwater Replenishment Project was originally planned, it was expected that wastewater flows would increase over time. However, unanticipated wastewater flow reductions due to increased conservation have greatly reduced the scope of that project. The Groundwater Replenishment Project will therefore be implemented in phases – the Initial Phase of the project, the Ozone Demonstration Project, which is currently in the permitting process, will use up to 3,500 AFY of recycled water for recharge at HSG. Future phases may be implemented as additional wastewater is brought to the DCTWRP. Plans include building an additional equalization tank in DCTWRP's primary phase to equalize diurnal flows and changing diversions within the sewer system, which currently discharge to Hyperion Water Reclamation Plant (HWRP). However, these changes would not allow DCTWRP to fully reach its design capacity of 80 million gallons per day (MGD). Recirculation of recycled water currently discharged to the Japanese Garden will allow the City to more fully utilize the capacity of its existing infrastructure at DCTWRP, the San Fernando Valley recycled water system, and the groundwater replenishment spreading grounds.

The purpose of the proposed Project is to enhance the reliability of the City's drinking water supply by reducing dependence on purchased imported water supplies by increasing local potable water supplies. The primary Project objective related to this purpose is to beneficially reuse recycled water. Subsequent

[1] For the purposes of this Initial Study, recycled water has the same meaning as "treated wastewater" in California Water Code section 1211.

extraction of this groundwater from the SFB will offset the purchase of imported water supplies with local groundwater.

The analysis presented in this Initial Study relies, in part, on the *Los Angeles River Environmental Flows Study* developed by the Southern California Coastal Water Research Project (SCCWRP) as an analytical tool for assessing changes to potential flow regimes and their potential effect on Los Angeles River resources (Stein et al. 2021a). The model is the product of coordination between the State Water Resources Control Board (SWRCB), LASAN, LADWP, the Los Angeles County Department of Public Works and Los Angeles County Sanitation Districts, and provides an assessment of the potential effects of changes in the flows in the Los Angeles River, and changes to in-channel parameters that may affect biological habitat and recreational uses. For the purpose of our analysis, this tool has been used in addressing both Project-specific and cumulative impacts.

Project Setting

DCTWRP is located at 6100 Woodley Avenue, in the Encino and Van Nuys communities of the City, and is located within the Sepulveda Basin, which is owned and managed by the United States Army Corps of Engineers (Corps) for the purposes of flood control, recreation opportunities, natural resources preservation and enhancement, and other uses. DCTWRP is operated by LASAN under a lease agreement with the Corps. The Japanese Garden, dedicated in 1984, occupies about 6.5 acres in the northwest corner of the DCTWRP.

Other Public Agencies Whose Approval is Required

State Water Resources Control Board

Summary of Environmental Impacts and Mitigation Measures

As described in the Initial Study, implementation of the proposed Project would cause no impacts to agriculture and forestry resources, transportation, cultural resources, hazards and hazardous materials, land use and planning, tribal resources, mineral resources, public services, utilities and service systems. All impacts identified for aesthetics, air quality, biological resources, geology and soil, greenhouse gas emissions, population and housing, energy resources, noise and wildfire would be less than significant or are able to be mitigated to less than significant levels.

Table ES-1. Summary of Proposed Project Environmental Impacts & Mitigation Measures

Would the Project?	Impact	Mitigation Measures
Aesthetics		
a) Have a substantial adverse effect on a scenic vista?	Less than Significant	No Mitigation Measures recommended
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than Significant	No Mitigation Measures recommended

Would the Project?	Impact	Mitigation Measures
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	Less than significant	No Mitigation Measures recommended
d) Create a new source of substantial light or glare which would adversely affect day or night-time views in the area?	Less than significant	No Mitigation Measures recommended
Agricultural Resources		
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No impact	No Mitigation Measures recommended
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No impact	No Mitigation Measures recommended
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No impact	No Mitigation Measures recommended
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No impact	No Mitigation Measures recommended
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No impact	No Mitigation Measures recommended
Air Quality		
a) Conflict with or obstruct implementation of the applicable air quality plan?	Less than significant	No Mitigation Measures recommended
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	Less than significant	No Mitigation Measures recommended
c) Expose sensitive receptors to substantial pollutant concentrations?	Less than significant	No Mitigation Measures recommended
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than significant	No Mitigation Measures recommended
Biological Resources		
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Less than significant	No Mitigation Measures recommended
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies,	Less than significant	No Mitigation Measures recommended

Would the Project?	Impact	Mitigation Measures
regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No Impact	No Mitigation Measures recommended
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No Impact	No Mitigation Measures recommended
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact	No Mitigation Measures recommended
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact	No Mitigation Measures recommended
Cultural Resources		
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	No Impact	No Mitigation Measures recommended
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	Less than significant	No Mitigation Measures recommended
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No Impact	No Mitigation Measures recommended
Energy		
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	Less than Significant	No Mitigation Measures recommended
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No impact	No Mitigation Measures recommended
Geology and Soils		
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?	Less than Significant	No Mitigation Measures recommended
b) Result in substantial soil erosion or the loss of topsoil?	Less than Significant	No Mitigation Measures recommended

Would the Project?	Impact	Mitigation Measures
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Less than Significant	No Mitigation Measures recommended
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No Impact	No Mitigation Measures recommended
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No Impact	No Mitigation Measures recommended
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than Significant	No Mitigation Measures recommended
Greenhouse Gas Emissions		
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than significant	No Mitigation Measures recommended
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than significant	No Mitigation Measures recommended
Hazards and Hazardous Materials		
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than significant	No Mitigation Measures recommended
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than significant	No Mitigation Measures recommended
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact	No Mitigation Measures recommended
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Less than significant	No Mitigation Measures recommended
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	No Impact	No Mitigation Measures recommended
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact	No Mitigation Measures recommended
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less than significant	No Mitigation Measures recommended
Hydrology and Water Quality		
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than significant	No Mitigation Measures recommended

Would the Project?	Impact	Mitigation Measures
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	No Impact	No Mitigation Measures recommended
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?	Less than significant	No Mitigation Measures recommended
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	No Impact	No Mitigation Measures recommended
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact	No Mitigation Measures recommended
Land Use and Planning		
a) Physically divide an established community?	No Impact	No Mitigation Measures recommended
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact	No Mitigation Measures recommended
Mineral Resources		
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No impact	No Mitigation Measures recommended
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No impact	No Mitigation Measures recommended
Noise		
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than significant	No Mitigation Measures recommended
b) Generation of excessive ground-borne vibration or ground-borne noise levels?	Less than significant	No Mitigation Measures recommended
c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	No impact	No Mitigation Measures recommended
Population and Housing		

Would the Project?	Impact	Mitigation Measures
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less than significant	No Mitigation Measures recommended
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No impact	No Mitigation Measures recommended
Public Services		
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection? Police protection? Schools? Parks? Other public facilities?	No impact	No Mitigation Measures recommended
Recreation		
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Less than significant	No Mitigation Measures recommended
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No impact	No Mitigation Measures recommended
Transportation		
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less than significant	No Mitigation Measures recommended
b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less than significant	No Mitigation Measures recommended
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less than significant	No Mitigation Measures recommended
d) Result in inadequate emergency access?	Less than significant	No Mitigation Measures recommended
Tribal Cultural Resources		
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Less than significant	No Mitigation Measures recommended

Would the Project?	Impact	Mitigation Measures
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Less than significant	No Mitigation Measures recommended
Utilities and Services Systems		
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No Impact	No Mitigation Measures recommended
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact	No Mitigation Measures recommended
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact	No Mitigation Measures recommended
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact	No Mitigation Measures recommended
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact	No Mitigation Measures recommended
Wildfire		
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact	No Mitigation Measures recommended
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Less than Significant	No Mitigation Measures recommended
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No Impact	No Mitigation Measures recommended
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact	No Mitigation Measures recommended

SECTION 1 Introduction

1.1 Overview of the Proposed Project

The City of Los Angeles (City), acting by and through the Department of Public Works, Los Angeles Sanitation and Environment (LASAN), and the Los Angeles Department of Water and Power (LADWP), proposes to change the place of use and purpose of use of up to 4,820 acre-feet per year (AFY; or 4.3 million gallons per day, MGD) of recycled water[2] (Subject Recycled Water) from the Donald C. Tillman Water Reclamation Plant (DCTWRP) (the proposed Project). The City prepared the Initial Study to evaluate the potential environmental impacts of the proposed Project and intends to rely on the Final Initial Study/Negative Declaration in seeking authorization from the State Water Resources Control Board (SWRCB) to repurpose the Subject Recycled Water. LADWP is the City's agency responsible for managing and controlling all of the City's water rights. LASAN is the owner and operator of the DCTWRP.

The predominant source of the Subject Recycled Water is water from the Los Angeles Aqueduct System and imported water purchased from the Southern California Metropolitan Water District (MWD). Currently, LASAN discharges the Subject Recycled Water from the DCTWRP into the Japanese Garden Lake and then into the Los Angeles River, immediately downstream of the Sepulveda Dam. The City intends to seek authorization from the SWRCB for LASAN to recirculate recycled water in the Japanese Garden Lake back to DCTWRP, and to provide the Subject Advanced Treated Recycled Water to LADWP to recharge the San Fernando Groundwater Basin (SFB). If authorized, the City's repurposing of the Subject Recycled Water would result in decreased discharges into the Los Angeles River.

Following recharge into the SFB, LADWP would extract the Subject Recycled Water for municipal, industrial, irrigation and recreational use. Groundwater replenishment would be accomplished by spreading the Subject Recycled Water at existing spreading facilities (Hansen Spreading Grounds [HSG] and Pacoima Spreading Grounds [PSG]), so that it will percolate into the SFB. There are on-going upgrades to each of these spreading grounds to accommodate the increase in flow from various City recharge projects. These upgrades and the associated construction activities were fully addressed in the Groundwater Replenishment Program Final EIR, certified in 2016 (SCH 2013091023; LADWP 2016). These upgrades and the proposed Project addressed in this CEQA document (the decision whether to change the designated beneficial use and place of use of the Subject Recycled Water) have independent utility and are not dependent on one another in order to move forward with either (i.e., the projects are not connected actions).

1.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to projects initiated by, funded by, or requiring discretionary approvals from California state or local government agencies. The proposed Project constitutes a project as defined by CEQA and this Initial Study/Negative Declaration has been prepared to meet all of the substantive and procedural requirements of CEQA (California Public Resources Code

[2] For the purposes of the City petition, recycled water has the same meaning as "treated wastewater" in California Water Code section 1211.

Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.). The City, acting by and through LASAN and LADWP, must complete an environmental review to determine if implementation of the proposed Project would result in significant adverse environmental impacts. LASAN is the Lead Agency for the proposed Project. Approval of the Project and adoption of the Negative Declaration will be required by the Los Angeles City Council. LADWP, as the City agency responsible for managing and controlling all of the City's water rights is a responsible agency under CEQA and will also require approval and adoption from the Los Angeles Board of Water and Power Commissioners.

1.3 Project Purpose and Need

The purpose of the proposed Project is to enhance the reliability and resiliency of the City's water supplies by reducing dependence on purchased imported water supplies and increasing local potable water supplies. With increasing development and installation of non-pervious land uses in Los Angeles region, surface runoff is increasing and natural recharge to the SFB is decreasing. Therefore, opportunities to replenish the aquifer with additional sources of water, such as the Subject Recycled Water provided by the proposed Project, are beneficial to the SFB. Subsequent extraction of this groundwater from the SFB will offset the purchase of imported water supplies with local groundwater.

The City's 2020 Urban Water Management Plan is the City's long-term water resource plan for developing and managing its water supply resources. The Urban Water Management Plan includes strategies for meeting the City's water needs while maximizing local resources and minimizing the need to import water. These strategies include increasing water conservation, increasing water recycling, enhancing stormwater recapture, and accelerating groundwater remediation. The Urban Water Management Plan includes a goal of increasing the use of recycled water within the City to 67,600 AFY by 2045. To achieve this goal, the City developed the 2012 Recycled Water Master Plan, prepared jointly by LADWP and LASAN, to advance both non-potable reuse projects and indirect potable reuse projects.

The City is currently implementing the Los Angeles Groundwater Replenishment Project to meet the goals for indirect potable reuse set by the Urban Water Management Plan. The Final EIR for the Groundwater Replenishment Project was certified in November 2016 (SCH 2013091023). Recycled water produced by DCTWRP is currently used in several ways. Approximately 3.0 million gallons per day (MGD) is needed for various in-plant processes. An average of approximately 1.6 MGD is currently used by LADWP customers for non-potable reuse through the San Fernando Valley recycled water system. A significant majority of the recycled water produced from DCTWRP is directed through a network of pipes to various water features located in the Sepulveda Basin. Recycled water from these water features, which include the Japanese Garden Lake, Lake Balboa, and the Wildlife Lake, ultimately discharges to the Los Angeles River at various locations. The Groundwater Replenishment Project will use recycled water produced at DCTWRP for groundwater replenishment at the HSG and PSG. When the Groundwater Replenishment Project was originally planned, it was expected that wastewater flows would increase over time. This would allow the second treatment battery at the DCTWRP to be activated to produce up to the 30,246 AFY of recycled water for groundwater replenishment (see Table 1.3-1). However, unanticipated wastewater flow reductions due to increased conservation have greatly reduced the scope of that project. The Groundwater Replenishment Project will therefore be implemented in phases – the Initial Phase of the project, the Ozone Demonstration Project, which is

currently in the permitting process, will use up to 3,500 AFY of recycled water for recharge at HSG. Future phases may be implemented as additional wastewater is brought to the DCTWRP. Plans include building an additional equalization tank in DCTWRP's primary phase to equalize diurnal flows and changing diversions within the sewer system, which currently discharge to Hyperion Water Reclamation Plant (HWRP). However, these changes would not allow DCTWRP to fully reach its design capacity of 80 million gallons per day (MGD). Recirculation of recycled water currently discharged to the Japanese Garden will allow the City to more fully utilize the capacity of its existing infrastructure at DCTWRP, the San Fernando Valley recycled water system, and the groundwater replenishment spreading grounds.

Table 1.3-1. Design Capacity and Average Monthly Flows for the DCTWRP for the Period January 2017 – June 2018

Design Capacity		Inflow to Plant		Outflow to Los Angeles River	
AFY	MGD	AFY	MGD	AFY	MGD
89,612	80.0	57,691	51.5[1]	30,246	27.0

[1] Some inflow (MGD) is diverted back to the Hyperion service area

1.3.1 Reason for Proposed Change

The proposed Project would enable the City to (i) implement the policies set forth in Los Angeles' Green New Deal (City of Los Angeles 2019), the 2020 Urban Water Management Plan (LADWP 2020) and the 2012 Recycled Water Management Plan; and (ii) maximize the reuse of recycled water consistent with state law and policy including, but not limited to California Water Code sections 461, 13500 et seq., and 13575 et seq., Government Code section 65601 et seq., and the SWRCB's Recycled Water Policy. "The purpose of the [Recycled Water Policy] is to increase the use of recycled water from municipal wastewater sources…." (State Water Resources Control Board, "Policy for Water Quality Control for Recycled Water (Recycled Water Policy)," p. 2).

1.3.2 Project Objectives

The Project objective is to beneficially reuse recycled water to increase recharge in the SFB. This will enhance the reliability of the City's drinking water supply by using recycled water treated by advanced water treatment processes at an existing facility. It will also increase the volume of recycled water available for potable use in the San Fernando Valley to reduce the City's use of purchased imported water.

1.4 Organization of the Initial Study

This Initial Study is organized as follows:

Executive Summary of this Initial Study provides an overview of the information provided in detail in subsequent chapters. It consists of an introduction; a brief description of the proposed Project; a discussion of issues raised by the public and agencies relative to the proposed Project construction and operations; and a table that summarizes the potential environmental impacts in each issue area, the significance determination for those impacts, mitigation measures, and significance after mitigation.

Section 1 (Introduction) provides an executive summary and a brief overview of the proposed Project and the CEQA environmental review process, including a section describing the organization of the Initial Study.

Section 2 (Project Description) provides a detailed description of the proposed Project. Project objectives are identified, and information on the proposed Project characteristics and construction scenario is provided. This chapter also includes a description of the intended uses of the Initial Study and public agency actions.

Section 3 (Environmental Factors Potentially Affected) lists those resource sections that could have potential effects and provides the City's determination regarding the level of environmental review which will be conducted.

Section 4 (Evaluation of Environmental Impacts) describes the baseline conditions and regulatory setting in the proposed Project area. This section describes, from a local and regional perspective, the physical environmental conditions in the vicinity of the proposed Project. The environmental setting establishes the baseline conditions by which the determination of specific Project-related impacts were made. This section also describes any federal, state, regional, and/or local regulations that are applicable to the proposed Project in relation to potential environmental impacts. This section also describes for each environmental resource area the impacts that would result from implementation of the proposed Project following Appendix G, CEQA Initial Study Checklist of the CEQA Guidelines; and the applicable mitigation measures that would eliminate or reduce any identified significant impacts. The following topics are addressed in the Initial Study.

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Section 5 (Cumulative Impacts) addresses the potentially significant cumulative impacts that may result from the proposed Project when taking into account related or cumulative impacts resulting from other past, present, and reasonably foreseeable future projects. The analysis relies in part on the newly developed *Los Angeles River Environmental Flows Study* as an analytical tool for assessing potential flow regimes (Stein et al. 2021a).

Section 6 (Growth-Inducing Impacts) describes the potential of the proposed Project to induce economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment.

Section 7 (Mandatory Findings of Significance) presents the City's findings of significance for the proposed Project.

Section 8 (Acronyms and Abbreviations) provides a list of acronyms and abbreviations used in this Initial Study.

Section 9 (List of Preparers) identifies those persons responsible for the preparation of this Initial Study.

Section 10 (References) lists the sources of information and data used in the preparation of this Initial Study.

SECTION 2 Project Description

2.1 Project Location, Surrounding Uses and Use Designations

DCTWRP is located at 6100 Woodley Avenue, in the Encino and Van Nuys communities of the City (Figure 2.1-2). DCTWRP is surrounded by, although not abutting, Victory Boulevard to the north, Woodley Avenue to the west and south, and Interstate 405 (I-405) to the east. It is immediately surrounded by Woodley Avenue Park on the west, south, and east, and by an Air National Guard facility on the north.

The DCTWRP is located within the Sepulveda Basin, located immediately northwest of the intersection of U.S. Highway 101 and I-405. The Sepulveda Basin is owned and managed by the Corps for the purposes of flood control, recreation opportunities, natural resources preservation and enhancement, and other uses. DCTWRP is operated by LASAN under a lease agreement with the Corps. The currently developed portions of the DCTWRP complex are generally separated from the surrounding Sepulveda Basin by a berm or wall, which protects the DCTWRP from flooding up to an elevation of 712.0 feet above mean sea level. To meet updated flood control requirements issued by the Corps, the existing berm and wall at DCTWRP is being raised to an elevation of about 716.5 feet above mean sea level. The Japanese Garden, dedicated in 1984, occupies about 6.5 acres in the northwest corner of the DCTWRP, and is also located within the area protected by the flood control berm and wall.

The discharge from the Japanese Garden Lake enters the Los Angeles River channel downstream of Sepulveda Dam, and as such ceasing this discharge would have no effect to the Sepulveda Basin. Under the proposed Project, water from the DCTWRP that currently flows from the Japanese Garden Lake to the discharge downstream of the Sepulveda Dam would instead be rerouted back to DCTWRP for additional treatment, and then be sent either to the PSG or the HSG, both located approximately 5 miles northeast of the DCTWRP. Figure 2.1-2 shows the location of the DCTWRP in relation to the PSG and HSG.

The 145,000-acre SFB into which the Subject Recycled Water would be percolated, includes the water-bearing sediments beneath the San Fernando Valley, Tujunga Valley, Browns Canyon, and the alluvial areas surrounding the Verdugo Mountains near La Crescenta and Eagle Rock in Los Angeles County, California. The SFB is bounded on the north and northwest by the Santa Susana Mountains, on the north and northeast by the San Gabriel Mountains, on the east by the San Rafael Hills, on the south by the Santa Monica Mountains and Chalk Hills, and on the west by the Simi Hills. Following extraction from the SFB, the Subject Recycled Water would ultimately be used within the City's water service area through existing infrastructure.

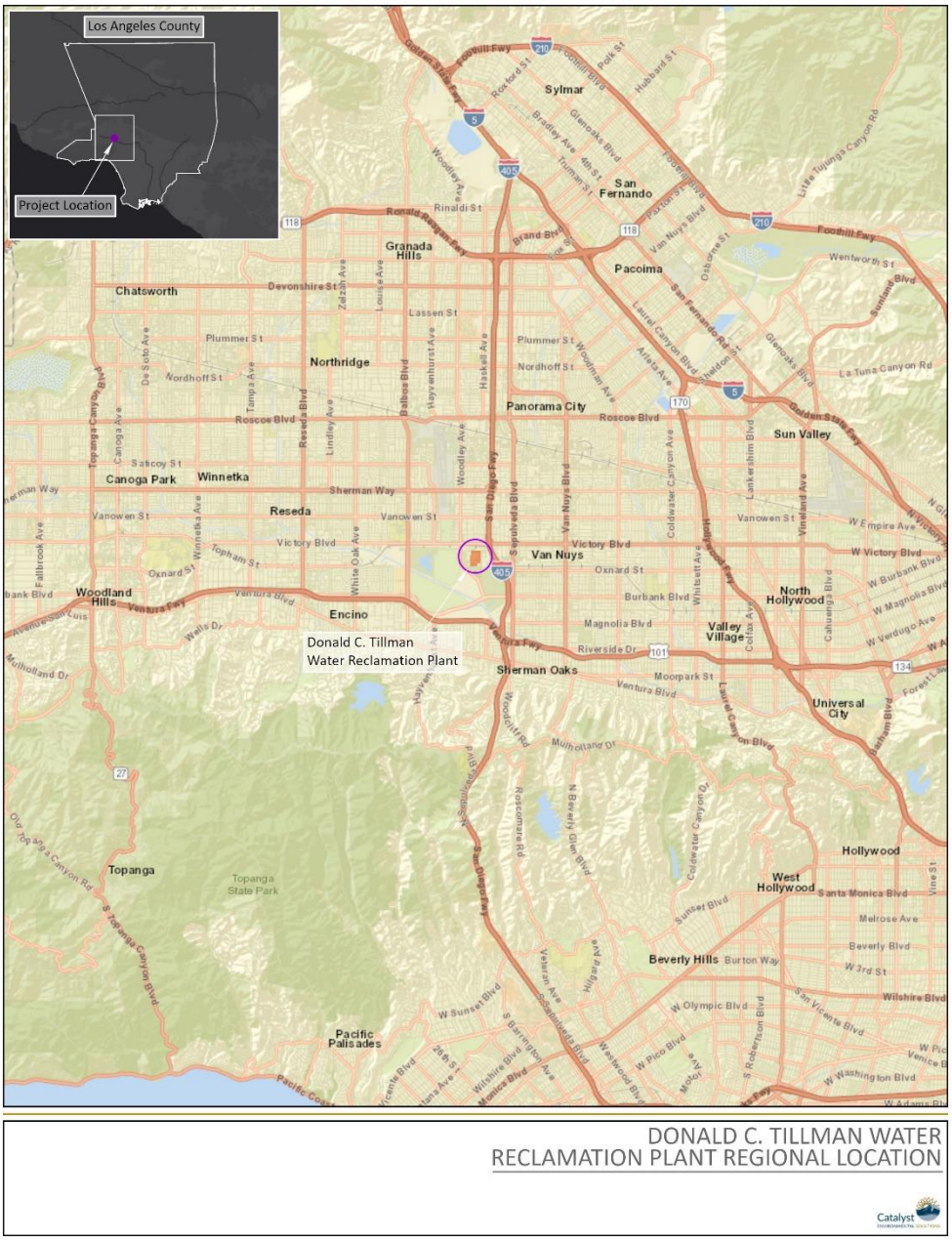

Figure 2.1-1. Project Location

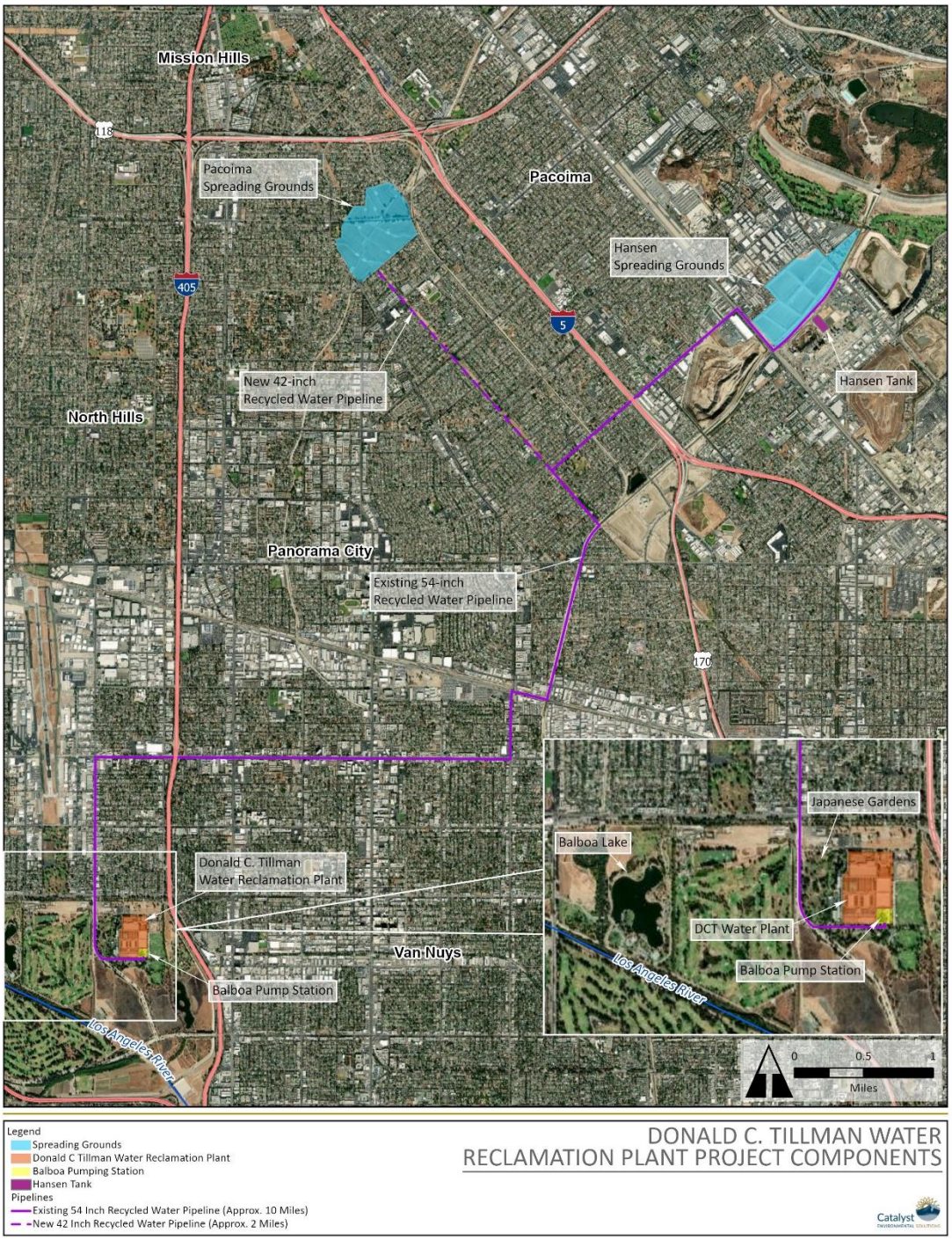

Figure 2.1-2. DCTWRP Project Components

2.1.1 Land Use and Zoning Designations

The DCTWRP property is designated as Public Facilities and Open Space in the City of Los Angeles General Plan. It is located within the Encino-Tarzana Community Plan area. The zoning designation for the DCTWRP property is [Q]PF-1XL (Public Facilities) and OS-1XL (Open Space).

2.1.2 Beneficial Use Designations

Water in the Los Angeles River is subject to the beneficial use designations and water quality objectives set forth in the *Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*, adopted by the Los Angeles Regional Water Quality Control Board (RWQCB). The designated beneficial use of the water in the Los Angeles River in the subject reach (Reach 4 – Riverside Drive to Sepulveda Dam) is groundwater recharge (GWR), contact recreation (REC-1), non-contact recreation (REC-2), warm freshwater habitat (WARM), wildlife habitat (WILD) and wetland habitat (WET), and aquatic habitat. The reach also has identified potential beneficial uses of municipal and domestic supply (MUN)[3] and industrial service supply (IND).

2.2 Project Components

2.2.1 Donald C. Tillman Water Reclamation Facility

DCTWRP began operating in 1985 as a water reclamation facility. While the DCTWRP lease encompasses approximately 96 acres within the Sepulveda Basin, the current water reclamation facilities, including support functions such as administration, storage, and maintenance, occupy only about 50 acres, which are protected from flooding at the Sepulveda Basin by a flood control berm and wall. DCTWRP produces tertiary-treated effluent with nitrification denitrification activated sludge treatment technology. DCTWRP has an 80-MGD treatment design capacity, consisting of two separate 40-MGD phases. Wastewater is received at the headworks facility located in the northern part of DCTWRP from the 96-inch Additional Valley Outfall Relief Sewer, and the 80-inch East Valley Interceptor Sewer, and undergoes primary treatment, biological nutrient removal, filtration, and disinfection to provide a tertiary level of wastewater treatment. Currently, only one of the two 40-MGD phases is in service. The remaining wastewater flows continue through the sewer system to the HWRP.

Recycled water produced by DCTWRP is currently used in several ways. Approximately 3.0 MGD is needed for various in-plant processes. An average of approximately 1.6 MGD is currently used by LADWP customers for non-potable reuse through the San Fernando Valley recycled water system. A significant amount of the recycled water produced from DCTWRP is directed through a network of pipes to Lake Balboa, the Wildlife Lake, and the Japanese Garden Lake, all located in the Sepulveda Basin (Table 2.2-1). These facilities were established and filled in 1990, 1988, and 1984, respectively. The flow-through process at the lakes serves to maintain water quality within the lakes to prevent fish kills, odor problems, and algae blooms. Recycled water from these water features ultimately discharges to the Los Angeles River. Water from Lake Balboa and the Wildlife Lake discharges to the Los Angeles River upstream of the Sepulveda Dam in Reach 5 of the river and water from the Japanese Garden Lake discharges downstream of the Sepulveda Dam in Reach 4 of the river. Additionally, intermittent overflows from an operational safety weir within DCTWRP discharge into a pipeline, which also carries stormwater and overflows from the Japanese Garden Lake to the Los Angeles River at a discharge point, located downstream of Sepulveda Dam, to a concrete lined portion of the Los Angeles River.

Table 2.2-1. Average Monthly Discharges from Sepulveda Basin into Los Angeles River January 2017 – June 2018

Discharge Upstream of Sepulveda Dam				Discharge Downstream of Sepulveda Dam			
Balboa Lake		Wildlife Lake		Weir Flow		Japanese Garden Lake	
17,362 AFY	15.5 MGD	5,265 AFY	4.7 MGD	2,800 AFY	2.5 MGD	4,819 AFY	4.3 MGD

AFY – acre-feet per year

MGD – million gallons per day

2.2.1.1 Design Characteristics and Construction Requirements for New Diversion Facility

To facilitate recirculating the Japanese Garden Lake's discharge flow (Subject Recycled Water) back to DCTWRP, a new diversion facility consisting of a new valve and new pipeline will be constructed. The new valve would be installed at the outlet of the Japanese Garden Lake. From the new valve, approximately 80 feet of new buried pipeline would be installed to divert the Subject Recycled Water after flow through to the Japanese Garden Lake back to the headworks of DCTWRP for additional treatment. After treatment, the Subject Recycled Water would be conveyed by the existing pipeline system to the HSG and PSG to replenish the SFB.

Figure 3 shows the location of the new valve and new 80-foot-long diversion pipeline which would redirect water from the Japanese Garden Lake Drain Pipe into the DCTWRP headworks (Figure 2.2-1). The flow-through function of the Japanese Garden Lake would not be impacted since flows would be intercepted only after they flow into the overflow structure.

Construction of the new valve is expected to take two to three months and occur within the summer months of 2022. Note that construction would not be continuous throughout this entire duration and is estimated to be completed in a total of six days. All laydown areas for the construction of the proposed Project would be located within DCTWRP grounds, immediately east of the primary equalization tanks. No construction equipment or trucks would be staged in publicly accessible areas of the Sepulveda Basin, and no construction activity would occur on public roadways or other public facilities. All activity would be located within the Japanese Garden and DCTWRP property line.

The City anticipates that public access to the Japanese Garden will be closed for up to three months, for the estimated duration of construction activity, which is described in greater detail in the following paragraphs.

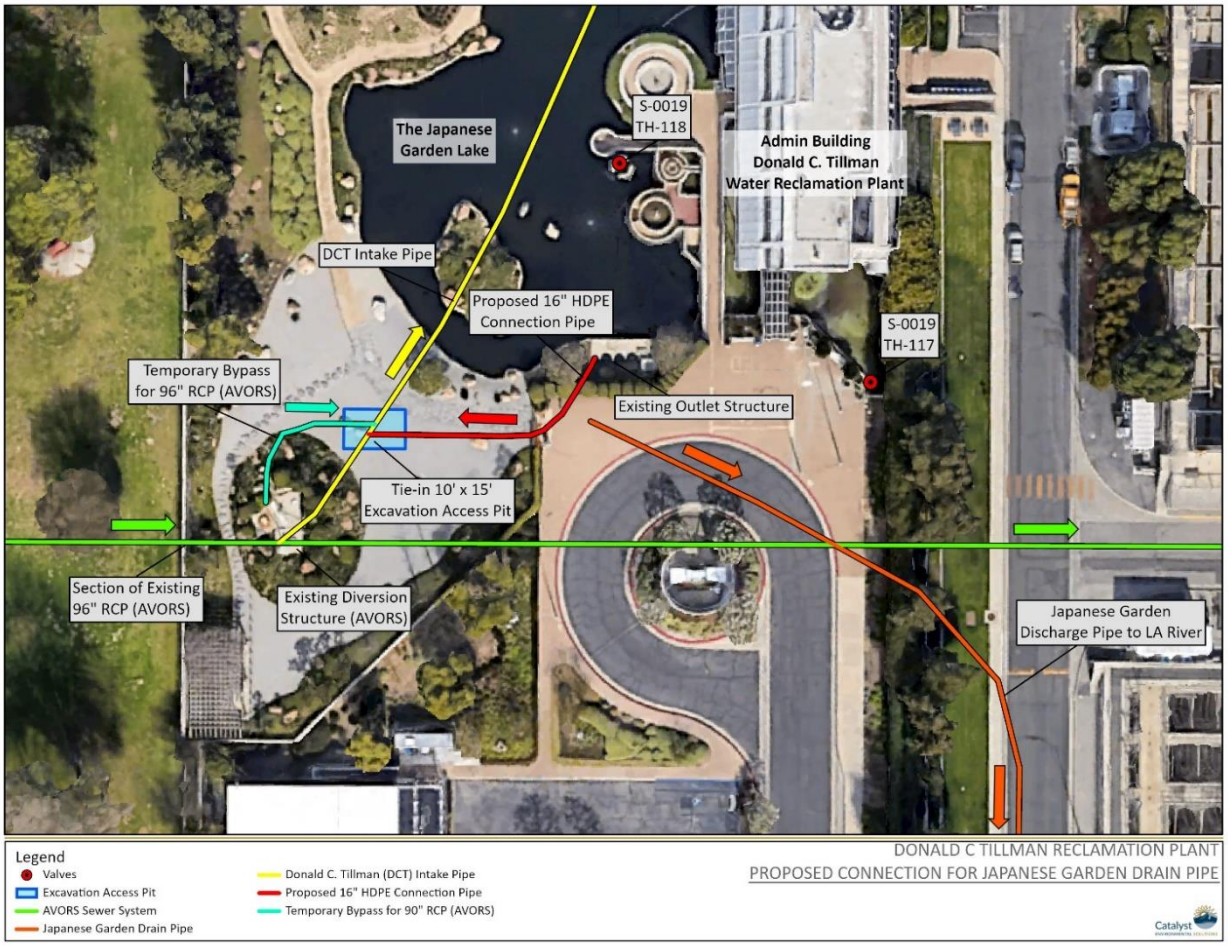

Figure 2.2-1. Proposed Connection for Japanese Garden Drain Pipe

A crew of as many as 15 personnel, working five days per week generally from 7 AM to 3 PM is estimated to complete the construction of the diversion facility; however, some construction activity may occur at night. Construction worker trips (employees traveling to/from the site) would be expected to occur after 7 AM in the morning and before 4 PM in the afternoon. When night-time work is required, trips would occur after 6 PM and would therefore occur outside the peak traffic hours (generally the peak hour of traffic occurs between 7 AM and 9 AM in the morning and 4 PM and 6 PM in the afternoon). Hauling and vendor trips to deliver equipment and material may occur throughout the day. Construction workers and equipment would access the site via the existing DCTWRP access road located off Woodley Avenue. Construction activities for the diversion facility will be implemented in four phases. The activities included in each phase are as follows:

- Phase 1 (Site Preparation, Demolition, and Excavation) – Demolish and remove existing surface or near surface improvement materials (e.g., roughly 1,200 square feet of asphalt and concrete) and prepare the site for new construction.
- Phase 2 (Trenching) – Excavation and support installation of the trenches for the diversion pipeline. Excavated materials (approximately 200 cubic yards) will be stockpiled onsite.

- Phase 3 (Construction/Pipe Installation and Backfilling) – Installation of the diversion pipeline including connections to the existing intake and drain pipelines, and backfilling trenches with structural backfill (approximately 30 cubic yards) and/or with stockpiled excavated materials.
- Phase 4 (Site Restoration) – Restoration activities including replacement of concrete and asphalt surfaces and restoring site landscaping.

Table 2.2-2 summarizes the equipment list required during each phase of construction of the diversion pipe connection.

Table 2.2-2. Construction Equipment List by Phase

Phase Name	Equipment Type	Operating Hours Per Day	Number of Equipment Units
Phase 1 – Site Preparation and Demolition (1 Day)	Excavator	8	1
	Loader	8	1
	Concrete Saw	8	1
	Water Truck	8	1
	Dump Truck	8	1
	Pickup Truck	8	2
Phase 2 – Trenching (1 Day)	Excavator	8	1
	Loader	8	1
	Water Truck	8	1
	Dump Truck	8	1
	Pickup Truck	8	2
Phase 3 – Construction/Pipe Installation and Backfilling (1 Day)	Excavator	8	1
	Crane	8	1
	Loader	8	1
	Water Truck	8	1
	Dump Truck	8	1
	Pickup Truck	8	2
Phase 4 – Site Restoration (Grading, Paving, Landscaping) (2 Days)	Excavator	8	1
	Loader	8	1
	Water Truck	8	1
	Dump Truck	8	1
	Compactor	8	1
	Concrete Mixer Truck	8	1
	Paver	8	1
	Roller	8	1
	Pickup Truck	8	2

It is assumed that approximately 30 cubic yards of structural backfill for the pipeline trench will be imported during Phase 3. All construction equipment is conservatively expected to operate for eight hours per day. Additionally, worker, vendor, and material haul trips are expected for the proposed Project, and are based on Project-specific information as summarized in Table 2.2-3. The trip lengths for worker, vendor, and haul trips are based on assumptions for the County of Los Angeles-South Coast in an urban setting.

Table 2.2-3. Construction Worker, Vendor, and Hauling Trips by Phase

Phase Name	Workers		Vendors		Haul Trucks	
	Number of Round Trips Per Day	Trip Length (miles)	Number of Round Trips Per Day	Trip Length (miles)	Total Number of Round Trips	Trip Length (miles)
Phase 1 – Site Preparation and Demolition (1 Day)	15	14.7	--	--	3	20
Phase 2 – Trenching (1 Day)	15	14.7	--	--	--	--
Phase 3 – Construction/Pipe Installation and Backfilling (1 Day)	15	14.7	2	6.9	3	20
Phase 4 – Site Restoration (Grading, Paving, Landscaping) (2 Days)	15	14.7	--	--	3	20

2.2.1.2 Project-Related Changes to Flow in the Los Angeles River

Apart from construction activity for the valve and pipeline described in the previous section, the only other physical change to the environment as a result of the proposed Project would be the cessation of discharges from the Japanese Garden to the existing outfall at the Los Angeles River downstream of Sepulveda Dam. The current and proposed (after Japanese Garden drainpipe connection is installed) monthly discharges to the Los Angeles River are shown in Table 2.2-4.

Table 2.2-4. Summary of Proposed Changes to Monthly Average Rate[1] and Annual Average Rate of Wastewater Discharge from DCTWRP to the Los Angeles River

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual (Acre-Feet)
Current Total Discharge from DCTWRP to the Los Angeles River (MGD)	28.3	28.8	28.5	27.9	28.0	29	29.3	28.8	28.9	28.1	28.4	28.1	38,339.6
Proposed Total Discharge from DCTWRP to the Los Angeles River (MGD)	24.5	25	24.8	24.1	24.1	25.1	25.4	24.8	24.9	24.1	24.5	24.2	33,126.3
Proposed Reduction in Discharge from DCTWRP to the Los Angeles River[2] (MGD)	3.8	3.8	3.7	3.8	3.9	3.9	3.9	4	4	4	3.9	3.9	4,819
Proposed Percent Change in Discharge from DCTWRP to the Los Angeles River (MGD)	13.4	13.2	12.9	13.6	13.9	13.4	13.3	13.9	13.8	14.2	13.7	13.9	13.6

1. Average rate in MGD based on flows from January 2008 to June 2019

2. The proposed reduction is the volume of water in MGD that is currently discharged from the Japanese Garden but which instead would be returned to the DCTWRP for additional treatment and then directed to the PSG and HSG for injection into the SFB

Flows from the Japanese Garden Lake, as well as the operational safety weir, are discharged to a 108-inch storm drain, which discharges downstream of the Sepulveda Dam to a concrete lined box-channel portion of the Los Angeles River. Figure 2.2-2 shows the location of the DCTWRP, the discharge point from the Japanese Garden to the Los Angeles River, and the location of U.S. Geologic Survey (USGS) Gage No. 11092450 (just below the Sepulveda Dam). Figures 2.2-3, 2.2-4, and 2.2-5 provide photos of the Los Angeles River at the Japanese Garden discharge point as well as immediately upstream and downstream of the discharge point.

Figure 2.2-2. Location of the DCTWRP Outfall for the Japanese Garden and the nearest downstream USGS Stream Gage on the Los Angeles River

Figure 2.2-3. DCTWRP Outfall into the Los Angeles River below the Sepulveda Dam

Figure 2.2-4. Los Angeles River looking downstream from the DCTWRP discharge point

Figure 2.2-5. Los Angeles River looking upstream from the DCTWRP discharge point

Figures 2.2-6, 2.2-7, and 2.2-8 show the contribution of the discharge from the Japanese Garden to Los Angeles River flow, during minimum, average, and maximum conditions. The minimum flow is based on the lowest monthly mean daily flow recorded at USGS Gage No. 11092450 between January 2008 and

June 2019. The average flow is based on the average monthly mean daily flow recorded at the gage during the same time period, and the maximum flow is based on the highest monthly mean daily flow recorded at the gage during the same time period.

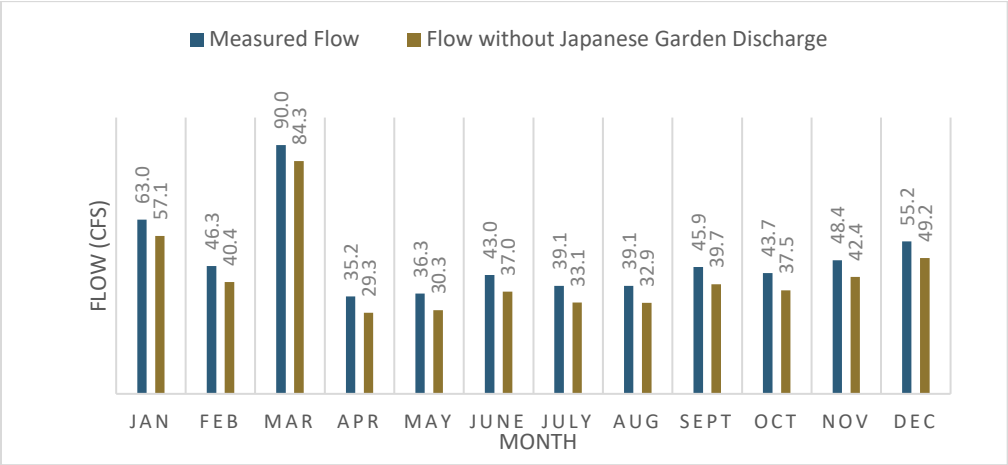

Figure 2.2-6. Minimum Flow Scenario – Measured Flow in Los Angeles River at USGS Gage No. 11092450 vs. Flow without Japanese Garden Discharge (January 2008-June 2019)

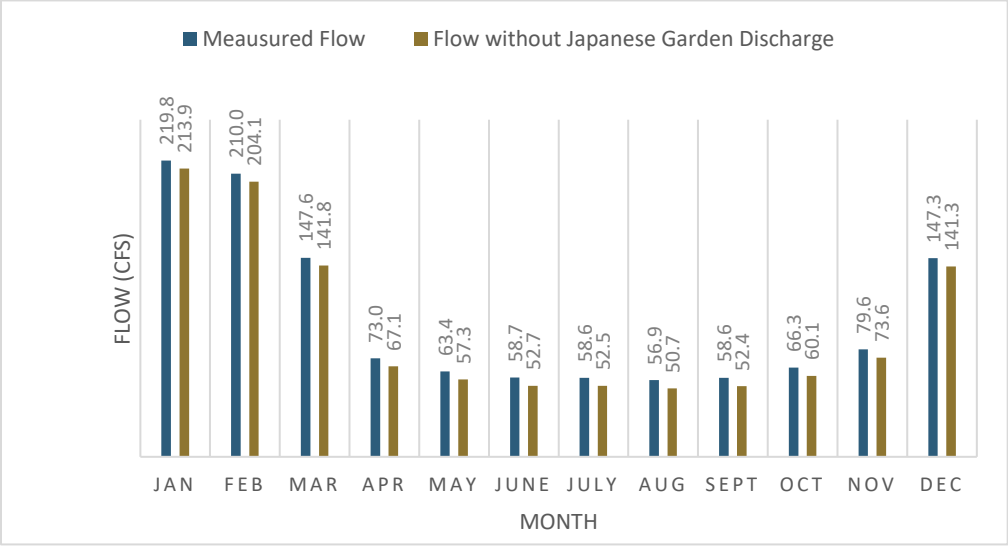

Figure 2.2-7. Average Flow Scenario – Measured Flow in Los Angeles River at USGS Gage No. 11092450 vs. Flow without Japanese Garden Discharge (January 2008-June 2019)

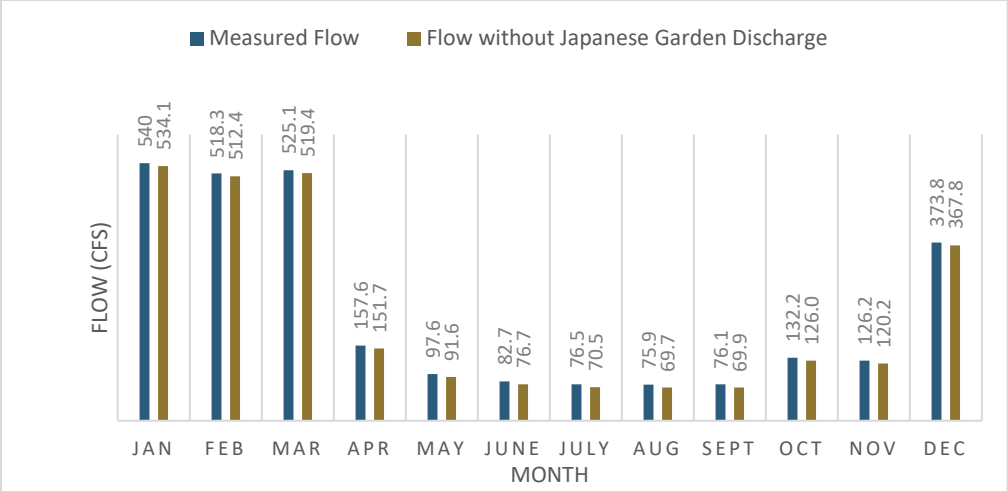

Figure 2.2-8. Maximum Flow Scenario – Measured Flow in Los Angeles River at USGS Gage No. 11092450 vs. Flow without Japanese Garden Discharge (January 2008-June 2019)

2.2.2 Hansen Spreading Grounds

Recycled water would enter HSG at either an existing outlet at Basin S, or a new outlet to be constructed at Basin 5. Construction for the outlet at Basin 5 was fully evaluated in the EIR for the Groundwater Replenishment Project (LADWP 2016) and is not reassessed in this document.

2.2.3 Pacoima Spreading Grounds

The PSG Enhancement Project is underway to increase the spreading capacity at PSG. PSG currently consists of 12 spreading basins; after the enhancement, the basins will be reconfigured to eight deeper basins. The PSG basins occupy 107 wetted acres and will go from its present estimated maximum storage volume of 173 MGD to 390 MGD and from its present percolation rate of 42 MGD to 92 MGD.

2.3 Conveyance

Recycled water would be conveyed to the spreading grounds using an existing 54-inch-diameter pipeline that currently conveys non-potable Title 22 recycled water from DCTWRP and the Balboa Pump Station to the Hansen Tank at HSG. However, portions of the pipeline were extended to reach the PSG in 2018. A new 42-inch-diameter lateral transmission pipeline was constructed from the existing 54-inch-diameter pipeline at Branford Street northwest along Canterbury Avenue to the PSG.

Existing non-potable Title 22 recycled water customers northeast of the DCTWRP outside of the Sepulveda Basin Area currently served by the existing 54-inch-diameter recycled water pipeline that would be used to convey recycled water to the HSG and the PSG would also receive new recycled water. The existing Balboa Pump Station at DCTWRP would also be expanded by adding one 800 hp pump to a previously constructed connection for additional pumps. The construction of the new pipeline and pump were addressed in the 2016 EIR for the Groundwater Replenishment Project (LADWP 2016). Conveyance pipeline construction commenced in spring 2018 and took approximately 18 months to complete, ending in fall 2019. Therefore, construction activities are not reassessed in this document.

2.4 Project Schedule

Construction activities associated with the new valve and piping at DCTWRP are anticipated to take approximately six days conducted over a two to three month period to complete, assuming construction begins in summer 2022. Reduced discharges to the Los Angeles River would only begin upon approval of the change in designated use by the SWRCB.

2.5 Necessary Approvals

Approvals required for implementation of the proposed Project include, but are not limited to, the following:

- SWRCB – Approval of Wastewater Change Petition under California Water Code Section 1211
- City of Los Angeles – Approval of the proposed Project, including approvals required by CEQA

2.6 Project Design Features

Pursuant to Assembly Bill 52, the City notified Native American tribes about the Project with a 30-day comment period, prior to publication of the CEQA document. The Fernandeño Tatavian Band of Mission Indians responded that the proposed Project is situated within the traditional FTBMI ancestral territory. This area was used historically and prehistorically by local natives and is traditionally known as part of the FTBMI Village of Siutcanga. Accordingly, the following Project Design Feature is incorporated as a part of the Project Description:

In the event that tribal cultural resources are discovered during the Project's ground-disturbing activities, all work within a 60-foot buffer area shall cease, and a qualified archaeologist meeting Secretary of Interior standards shall assess the find. The Lead Agency or Project manager shall contact the Fernandeño Tataviam Band of Mission Indians to consult if any such find occurs within the areas culturally and traditionally affiliated with the Fernandeño Tataviam Band of Mission Indians. Should sensitive tribal cultural resources be encountered the Fernandeño Tataviam Band of Mission Indians may request that a Native monitor be retained by the City to document further resources in real-time for the remainder of ground disturbing activities. The lead agency shall, in good faith, consult with the Fernandeño Tataviam Band of Mission Indians on the disposition and treatment of any tribal cultural resources encountered during all ground disturbing activities.

SECTION 3 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages. As shown in the checklist, no Potentially Significant Impacts have been identified.

☐ Aesthetics	☐ Agriculture / Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

3.1 Determination

On the basis of this initial evaluation:

☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or

NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ *Date* 12/14/21

SECTION 4 Evaluation of Environmental Impacts

This section describes resources that are found in the study area and describes the effects that implementation of the proposed Project may have on those resources. Impacts to resources may result from the construction of the proposed Project, or operation and maintenance associated with the completed Project. For each resource area, the potential impacts resulting from implementation of the proposed Project are evaluated for their level of significance.

The categories used to designate impact significance are described below:

- *No Impact*: A project is considered to have no impact if there is no potential for impacts, or if the environmental resource does not exist within the project area or the area of potential effect (APE). For example, there would be no impacts related to wastewater disposal if the project would not involve the production of wastewater.
- *Less than Significant*: This determination applies if there is some impact, but not one that qualifies under the significance criteria as a significant impact.
- *Less than Significant with Mitigation*: This determination applies to impacts that exceed significance criteria, but for which feasible mitigation is available to reduce the impacts to a less than significant level.
- *Potentially Significant:* This determination applies to impacts that are significant but for which: 1) no feasible mitigation has been identified to reduce the impact to a less than significant level, or 2) feasible mitigation has been identified, but the residual impact remains significant after mitigation is applied. Therefore, the impact is considered significant and unavoidable.

Determination of impact is driven by the application of significance criteria. These are the thresholds which trigger a determination of impact significance. In turn, significance criteria are determined through evaluation of the regulatory setting of the area from a federal, state, and local standpoint. When no regulatory guidelines are available, generalized criteria based on the CEQA Checklist ensures that significance is comprehensively addressed.

In cases where impacts are expected, but which can be reduced with adequate mitigation, those mitigation measures are described. A revised level of significance may result from mitigation. In some cases, less than significant determinations are made, but application of mitigation may still be warranted to further reduce potential impacts (CEQA Section 15021).

Impact assessment takes into consideration construction and operational impacts. Construction impacts are those that may occur during implementation of construction actions and are compared to baseline conditions under which no project would occur. Operational impacts are those that may occur after the project has been completed.

The analysis of potential impacts and mitigation measures is based on pre-determined significance criteria. The significance criteria used in this Initial Study are taken from Appendix G: Environmental Checklist Form included in the CEQA Guidelines (CA OPR 2018).

4.1 Use of the 2021 *Los Angeles River Environmental Flows Study* for Analysis

The analysis presented in this Initial Study relies, in part, on the *Los Angeles River Environmental Flows Study* (Stein et al. 2021a) developed by the Southern California Coastal Water Resource Project (SCCWRP) as an analytical tool for assessing potential flow regimes in the Los Angeles River and the effect of changes in flow regimes on certain environmental resources (also referred to as the SCCWRP Flow Study). This tool has been used in assessing potential Project-specific and cumulative impacts. The model is the product of coordination between the SWRCB, the Los Angeles County Department of Public Works, LADWP, LASAN and Los Angeles County Sanitation Districts.

The City utilized the SCCWRP Flow Study to assess Project and cumulative impacts for expected impacts to Biological Resources, Hydrology and Water Quality, and Recreation. The City obtained the underlying hydraulic model for the SCCWRP Flow Study (in the numerical model known as HEC-RAS), and used this calibrated and validated model to describe changes in the Los Angeles River due to the removal of the Japanese Garden outflow, and for impacts due to removal of the Japanese Garden outflow, plus the authorized reductions in flow by the Burbank and Glendale Water Reclamation Plant Projects. The methods for using the SCCWRP Flow Study as an analysis tool for this Initial Study is described in more detail in Section 5.0, Cumulative Impacts. The complete cumulative impact assessment also includes the potential effects of other activities, but because these other projects do not affect flow in the Los Angeles River, the SCCWRP Flow Study was not used to assess the impact of these other activities.

4.2 Los Angeles River Reach Designations Used for Analysis

The Los Angeles RWQCB subdivides the Los Angeles River into six reaches, which are shown below in Figure 4.2-1 and described in the following.

- Reach 6 – the uppermost reach of the Los Angeles River main stem and is upstream from, and unaffected by, the proposed Project. It begins at the confluence of Arroyo Calabasas and Bell Creek. In this reach, the river flows east from its origin, along the southern edge of the San Fernando Valley, to Balboa Boulevard in the Lake Balboa area of the City. This reach of the Los Angeles River is completely channelized and receives flow from Browns Canyon, Aliso Canyon Wash, and Caballero Creek.
- Reach 5 – extends from Balboa Boulevard through the Sepulveda Flood Control Basin (Basin) to the Sepulveda Dam and is upstream from, and unaffected by, the proposed Project. The Basin is a "soft-bottom" portions of the main river channel. It is a 2,150-acre open space designed to collect floodwaters during major storms. Because the area is periodically inundated, it remains in natural or semi-natural conditions and supports a variety of low-intensity uses.
- Reach 4 - runs from the Sepulveda Dam to Riverside Drive and is channelized. Pacoima Wash and Tujunga Wash are the two main tributaries to this reach. Both tributaries drain portions of the Angeles National Forest in the San Gabriel Mountains. This reach marks the first to potentially be affected by the proposed Project, as well as Reaches 1 through 3 below.
- Reach 3 – extends from Riverside Drive to Figueroa Street and flows from the eastern end of the San Fernando Valley through Griffith Park and Elysian Park. This area is known as the

Glendale Narrows. The area is fed by natural springs during periods of high groundwater. The river is channelized, and the sides are lined with concrete. However, the river bottom in this area is unlined because rising groundwater routinely discharges into the channel, in varying volumes depending on the height of the water table, maintaining year-long flow in the river, downstream. The Los Angeles-Glendale Water Reclamation Plant discharges to the Los Angeles River in the Glendale Narrows. The two major tributaries to this reach are the Burbank Western Channel, which receives flows from the Burbank Water Reclamation Plant, and Verdugo Wash, which drains the Verdugo Mountains.

- Reach 2 - runs from Figueroa Street to Carson Street. It has two major tributaries – the Arroyo Seco and the Rio Hondo. The Arroyo Seco drains areas of Pasadena and portions of the Angeles National Forest in the San Gabriel Mountains and lies just below the Glendale Narrows.
- Reach 1 - runs from Carson Street to the estuary at Willow Street. Compton Creek is the major tributary for this reach.

These six reaches provide the basis for evaluating impacts to the river as a whole for all resource sections except for Biological Resources, for which a more granular reach system developed by the Corps used. That system is described in the Biological Resources Section 4.6.

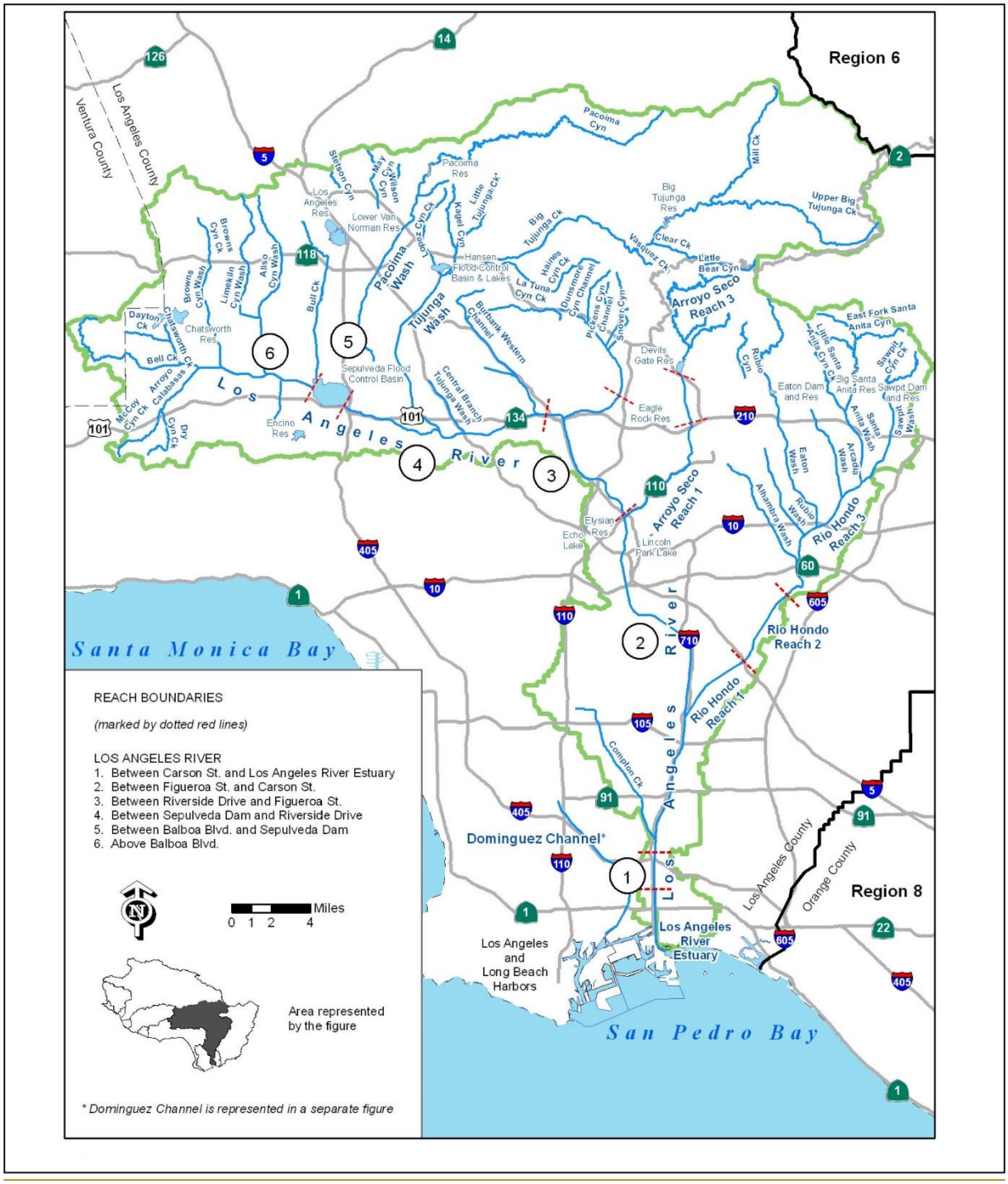

Figure 4.2-1. Reaches of the Los Angeles River Watershed (source: USEPA 2014)

4.3 Aesthetics (AES)

This section assesses the potential impacts to aesthetics that would be created by the proposed Project. The character of the existing visual environment was determined through field reconnaissance, photographic records, and aerial photographs. The visual environment of the proposed Project site provides a baseline against which the effects of the proposed Project on aesthetics are assessed. The analysis describes the aesthetic impacts of the proposed Project on the existing landscape and built environment, focusing on the compatibility of the proposed Project with existing conditions and its potential impacts on visual resources.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

4.3.1 Environmental Setting

Construction activity associated with the proposed Project would be located entirely within the Japanese Garden area of the DCTWRP, which is located in the Encino and Van Nuys communities of the City of Los Angeles. Residential and commercial areas in the vicinity of DCTWRP are located north of Victory Boulevard (about 800 feet north of DCTWRP) and east of I-405 (about 1,200 feet east of DCTWRP).

However, DCTWRP is not visible from these areas, including from Victory Boulevard and I-405, because of intervening structures, terrain, and/or vegetation. DCTWRP is in the Sepulveda Basin, which, in addition to Woodley Park, also encompasses numerous other recreational facilities, including golf courses, active recreation areas, and passive recreation areas, which are located generally to the west of Woodley Avenue. DCTWRP is not visible from these more distant functions within the basin because of intervening vegetation and/or terrain.

The Japanese Garden and adjacent Sepulveda Basin Wildlife Reserve are noted as having high aesthetic value (Corps 2011). The DCTWRP and Japanese Garden are bordered on the west, south, and east by a flood control berm or wall, which protects the plant from a 100-year flood event (Figure 4.3-1). The berm ranges in elevation from about 712 feet above mean sea level to about 715 feet above mean sea level. Certain portions of DCTWRP are visible from the garden, including the main administration building, which is integrated into the garden setting (Figure 4.3-2). In addition, raised walkways and platforms accessed through the administration building provide elevated views of both the garden and DCTWRP (Figure 4.3-2). The Japanese Garden discharge location is visible from the walkway path (Figure 4.3-3). Within the vicinity of the proposed Project site, scenic vistas are available of the surrounding mountains, including the Verdugo Mountains and San Gabriel Mountains to the north and east and the Santa Monica Mountains to the south. While such views may be partially available from the identified vantage points surrounding DCTWRP (e.g., the ANGS compound and Woodley Park), they are interrupted by existing development, vegetation, and terrain.

Figure 4.3-1. View of the berm surrounding the Project site looking northwest from the Japanese Gardern lake.

Figure 4.3-2. View of the Japanese Garden lake looking northeast from the Project site.

Figure 4.3-3. View of the Japanese Garden discharge Point looking northeast from the walkway.

4.3.2 Regulatory Setting

4.3.2.1 City of Los Angeles General Plan

There are no elements in the City of Los Angeles General Plan that specifically refer to aesthetics or visual quality (LA City 1995). However, the proposed Project site is also located within the Encino-Tarzana Community Plan area in the City of Los Angeles which does address visual open space (Table 4.3-1).

Table 4.3-1. Applicable City of Los Angeles General Plan Objectives and Policies

Element	Objective	Policy	Applicability
Encino-Tarzana Community Plan	To preserve existing open space resources and where possible develop new open space.	5-1.1 - Encourage the retention of passive and visual open space to provide a balance to the urban development of the Plan Area	The proposed Project includes installation of a buried pipe which would not be visible once installed, and a new valve at the existing outlet structure which would not result in a reduction of passive and visual open space at the Japanese Garden or Sepulveda Basin.

4.3.3 Environmental Impacts

AES (a). Have a substantial adverse effect on a scenic vista?

Less Than Significant. The proposed Project involves the reduction in discharges of treated wastewater from the DCTWRP to the Los Angeles River, with a proportional increase in the delivery of recycled water for beneficial reuse in the City of Los Angeles, and only minor construction at the Japanese Garden to install the valve would occur. No other physical changes to facilities are proposed. Neither the DCTWRP nor the Japanese Garden contain designated scenic or provide views of such resources, as designed by the City of Los Angeles General Plan (LA City 1995) or the Encino-Tarzana Community Plan.

While no portion of the DCTWRP or Japanese Garden contain a scenic vista or valued scenic resources, the River itself may be considered a scenic resource as viewed from a public right-of-way. Views of the River from publicly available viewpoints might be considered as providing a scenic vista; however, despite the conservative assumption that the River is a visually prominent feature as viewed from surrounding publicly available vantage points, implementation of the proposed Project would have no measurable effect on the scenic value of the River. This is because, as further discussed below under Section 4.10, Hydrology and Water Quality, the proposed reductions in wastewater discharges from the DCTWRP would not result in notable reductions in flow volumes and associated water levels in the River, such that a discernible change in the visual characteristics of this feature would occur. Similarly, as discussed in Section 4.6, Biological Resources, the proposed flow reductions would not result in significant adverse effects on downstream habitat such that visible reduction in vegetation or other visible features of the River would occur.

Regarding aesthetic effects related to the expanded Place of Use, the application of recycled water produced at the DCTWRP within the City would offset potable water supplies that are currently being utilized for non-potable applications such as landscape irrigation. The increased use of recycled water, therefore, would not have any visible effects within the proposed Project area, as the use of recycled water would not result in changes to the amount or location of landscaping or other vegetation or involve other physical changes that could cause adverse visual impacts. Rather, the proposed Project would result in the conservation of potable water to enhance the City's potable supplies. In addition, since the expansion of the City's recycled water distribution system was previously evaluated in the Groundwater Replenishment Project EIR adopted in 2016, the short-term construction-related effects of these improvements, as well as the long-term impacts associated with the application of recycled water at these locations, were already evaluated and impacts were determined to be less than significant. As such, impacts to scenic vistas would be less than significant.

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

Less Than Significant. The Japanese Garden and surrounding Sepulveda Basin is a heavily vegetated area in the middle of the urbanized San Fernando Valley, with many mature trees, ornamental plantings, and native vegetation. No historic buildings (including those within a state scenic highway) occur on-site. The proposed Project would not result in the removal or modification of any natural vegetation but would involve temporary effects to ornamental vegetation during construction. Following the completion of construction activities, vegetation would be replaced.

Furthermore, as discussed above, the proposed Project would incrementally reduce wastewater discharges from the DCTWRP to the Los Angeles River, which could be considered a valued scenic resource. Nonetheless, as also discussed above, the proposed reductions in discharges to the River are not expected to result in measurable changes to the appearance of the River, as flow reductions and related effects on water levels and vegetation would be nominal and not noticeable to viewers. As such, while the proposed Project would incrementally reduce discharges of treated effluent to the River, its implementation would not substantially damage scenic resources in the proposed Project area, including the River as viewed from surrounding locations. Impacts in this regard would be less than significant.

AES (c). In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant. The proposed Project site is located in a highly urbanized area of the City. The visual character of the proposed Project site and surrounding area is that of an open space park surrounded by a densely populated urbanized city, fully developed with a mix of low- too mid-rise buildings along Victory Boulevard interspersed with signage, lighting, utility, and roadway infrastructure. The 80-foot-long diversion pipeline to be installed as part of the proposed Project would be buried and would not be visible once installed. The new valve would be installed at the existing outlet structure and would be consistent with the visual character of the outlet and would not degrade the existing visual aesthetic of the Japanese Garden Lake. As discussed in Responses (a) and (b) above, the application of

recycled water within the City of Los Angeles would not result in visible changes to the proposed Project area, as evaluated in previous CEQA documentation, and thus the construction and operation of recycled water facilities would result in less than significant impacts to visual character or quality. Further, the proposed Project would not measurably reduce the flow levels or vegetation within the river and does not involve any other physical changes to the environment such that its implementation could substantially adversely affect visual resources on- or off-site.

As discussed in the Regulatory Setting, the Project is located within the Encino-Tarzana Community Plan area in the City of Los Angeles. The Encino-Tarzana Community Plan contains the following objective and policy related to visual open space (also listed above in Table 4.3-1):

Objective: To preserve existing open space resources and where possible develop new open space.

Policy 5-1.1: Encourage the retention of passive and visual open space to provide a balance to the urban development of the Plan Area.

The proposed Project includes installation of a buried pipe which would not be visible once installed, and a new valve at the existing outlet structure which would not result in a reduction of passive and visual open space at the Japanese Garden or the Sepulveda Basin. Therefore, the Project would not conflict with the policies governing scenic quality in the Encino-Tarzana Community Plan. Further, as discussed in Section 4.13 Land Use and Planning below, the proposed Project is consistent with all applicable land use planning requirements and zoning. Accordingly, impacts would be less than significant.

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

Less than Significant. The proposed Project does not propose development or change in current operations of the DCTWRP or Japanese Garden beyond that requested in the Wastewater Change Petition; although lighting may be necessary during construction activity, any lights required for construction would be shielded, directed downward, and would be limited in duration of use. Further, the existing wall surrounding the Japanese Garden would prevent the light from being visible to any receptors outside of the Japanese Garden. Therefore, the Project would not create a new source of substantial light or glare which would adversely affect the day or nighttime views in the area, as the proposed Project would only result in the increased use of recycled water to offset potable water use and enhance the City's potable water supplies. As such, impacts would be less than significant.

4.4 Agriculture and Forestry Resources (AGR)

This section evaluates the proposed Project's impacts on agriculture and forestry resources based on existing zoning of the proposed Project site and surrounding area, and whether the proposed Project would convert important farmland or forest land to other non-agricultural or non-forest land uses.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

4.4.1 Environmental Setting

No portion of the proposed Project site is zoned for or designated as agriculture or forest land. The surrounding open space is developed as a public recreation area and does not contain agriculture or timber resources. The nearest forest lands are located in the Angeles National Forest, approximately 13 miles northeast of the proposed Project site. The areas surrounding the proposed Project site are primarily developed with residential uses.

4.4.2 Regulatory Setting

There are no applicable regulations or policies related to agriculture and forestry that apply to the proposed Project.

4.4.3 Environmental Impacts

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

No Impact. No agricultural uses or related operations are present within the site, and the nearby Tapia Brothers Farm would not be impacted by the proposed Project. No portion of the proposed Project site is located on designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program. Furthermore, the City's 2035 General Plan (General Plan) does not identify the proposed Project site as an area designated for agriculture use. Therefore, no impact would occur in this regard.

AGR (b). Conflict with existing zoning for agricultural use, or a Williamson Act Contract?

No Impact. No agricultural zoning is present within the proposed Project site and no portion of the site is enrolled in a Williamson Act contract. As such, the proposed Project would not conflict with existing zoning for agricultural use or a Williamson Act contract and no impact would occur in this regard.

AGR (c). Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 1220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. No forest land or timberland zoning is present on the proposed Project site or in the surrounding area. As such, the proposed Project would not have the potential to conflict with existing zoning for forest land or timberland and no impact would occur in this regard.

AGR (d). Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No forest land exists on the proposed Project site or in the surrounding area, and neither the proposed reduction in wastewater discharges to the River nor the increased application of recycled water in the proposed Project area would have the potential to affect forest land. As such, the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use and no impact would occur in this regard.

AGR (e). Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The proposed Project would not involve the conversion of farmland to other uses, either directly or indirectly. No impacts to farmland or agricultural uses would occur.

4.5 Air Quality (AIR)

This section examines the degree to which the proposed Project may result in significant adverse changes to air quality. This section includes a description of existing air quality conditions, a summary of applicable regulations, and an analysis of potential short-term construction and long-term operational air quality impacts of the proposed Project.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.5.1 Environmental Setting

The proposed Project site is located within the Los Angeles County portion of the South Coast Air Basin ("the Basin"). Los Angeles County is designated as a state nonattainment area for ozone (O_3), fine particulate matter (PM) less than 2.5 microns in diameter ($PM_{2.5}$), PM 10 microns of less in diameter (PM_{10}) and lead. Los Angeles County is an attainment or maintenance area for carbon monoxide (CO), nitrogen dioxide (NO_2) and sulfur dioxide (SO_2).

The South Coast Air Quality Management District (SCAQMD) is the air pollution agency responsible for monitoring air quality conditions and regulating stationary sources of air pollution in the Basin. The proposed Project is located in the West San Fernando Valley and East San Fernando Valley subregions, which is served by the Reseda Air Monitoring Station located approximately three miles northwest of the DCTWRP at 18330 Gault Street. A review of the monitoring data from 2017-2019 indicates that concentrations of ozone as measured at this monitoring station exceeded the state 8-hour standard for 60 days in 2017, 57 days in 2018, and 30 days in 2019. The annual state standard for $PM_{2.5}$ was also exceeded one day in 2018.

4.5.1.1 Criteria Air Pollutants

Air quality is defined by ambient air concentrations of seven specific pollutants identified by the United States Environmental Protection Agency (USEPA) to be of concern with respect to health and welfare of

the general public. These specific pollutants, known as "criteria air pollutants," are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants include CO, O_3, nitrogen oxides (NO_X), sulfur oxides (SO_X), $PM_{2.5}$, PM_{10}, and lead (Pb) (Table 4.5-1).

Table 4.5-1. Federal and State Air Quality Standards

Pollutant	Averaging Period	California		Federal	
		Standards	Attainment Status	Standards	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m³)	Nonattainment	--	--
	8-hour	0.070 ppm (137 µg/m³)	n/a	0.075 ppm (1347 µg/m³)	Nonattainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m³	Nonattainment	150 µg/m³	Maintenance
	Annual Arithmetic Mean	20 µg/m³	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m³	Nonattainment
	Annual Arithmetic Mean	12 µg/m³	Nonattainment	12.0 µg/m³	Nonattainment
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m³)	Maintenance	9 ppm (10 mg/m³)	Maintenance
	1-hour	20 ppm (23 mg/m³)	Maintenance	35 ppm (40 mg/m³)	Maintenance
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	30 ppb (57 µg/m³)	Attainment	53 ppb (100 µg/m³)	Attainment
	1-hour	0.18 ppm (338 µg/m³)	Attainment	100 ppb (188 µg/m³)	Maintenance
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	--	0.030 ppm (80 µg/m³)	Attainment
	24-hour	0.04 ppm (105 µg/m³)	Attainment	0.14 ppm (365 µg/m³)	Attainment
	3-hour	--	--	75 ppb (196 µg/m³)	--
	1-hour	0.25 ppm (655 µg/m³)	Attainment	--	--
Lead (Pb)	30-day average	1.5 µg/m³	Attainment	--	--
	Calendar Quarter	--	--	1.5 µg/m³	Nonattainment
Visibility Reducing Particles	8-hour	Extinction of 0.07 per	n/a	No Federal Standards	

Pollutant	Averaging Period	California		Federal	
		Standards	Attainment Status	Standards	Attainment Status
		kilometer			
Sulfates	24-hour	25 µg/m^3	Attainment		
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	Unclassified		
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	n/a		

n/a = not available

Source: CARB 2014

4.5.1.2 Local Climate

The climate of Southern California is classified as Mediterranean and is characterized by warm, dry summers and mild winters with moderate rainfall. Prevailing daily winds in the region are westerly, with a nighttime return flow. Within the proposed Project site and in its vicinity, wind predominately blows from the east-southeast at approximately 1.3 miles per hour (SCAQMD 2020).

The annual average temperature in the proposed Project area is 63.4 degrees Fahrenheit (°F). Total precipitation on the proposed Project site and vicinity averages approximately 17.7 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer.

The topography and climate of Southern California combine to make the Basin an area of high air pollution potential. A warm upper layer of air mass descends over the cool, moist marine layer and forms a cap over the cooler surface layer, which inhibits the pollutants from dispersing upward during the summer months. Light winds during the summer further limit ventilation and abundant sunlight triggers photochemical reactions that produce O_3 and the majority of PM.

4.5.1.3 Air Monitoring Data

The SCAQMD monitors air quality conditions at 40 locations throughout the Basin. The proposed Project is in the West San Fernando Valley and East San Fernando Valley subregions, which is served by the Reseda Air Monitoring Station located approximately three miles northwest of the DCTWRP at 18330 Gault Street. A review of the monitoring data from 2017-2019 indicates that concentrations of ozone as measured at this monitoring station exceeded the state 8-hour standard for 60 days in 2017, 57 days in 2018, and 30 days in 2019. The annual state standard for $PM_{2.5}$ was also exceeded one day in 2018.

4.5.1.4 Sensitive Receptors

The California Air Resource Board (CARB) has identified the following groups who are most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive

receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The only sensitive receptors within 500 meters of the construction site at the Japanese Garden area of the DCTWRP near the various proposed Project components include residences, Nikkei Senior Garden, Woodley Park, Devonshire Arleta Park, and other community parks is the Woodley Park outdoor fitness facility directly northwest of the proposed Project site.

The proposed Project is located within a large recreational area in the middle of an urban environment. The only sensitive receptor within 500 meters of the construction site at the Japanese Garden area of the DCTWRP is the Woodley Park outdoor fitness facility directly northwest of the proposed Project site. The nearest residences to the proposed Project site are located 800 feet north and approximately 1,500 feet east.

There are no schools located within a half mile of the proposed Project vicinity. Table 4.5-2 lists the public elementary, middle and high schools that are located within two miles of the proposed Project area. In addition to public schools, there are also private and professional schools located within the proposed Project area.

Table 4.5-2. Public, Private and Professional Schools within Two Miles of the Proposed Project

Name	Address	Community
Bassett Street Elementary School	15756 Bassett Street	Van Nuys
Sylvan Park Elementary School	6238 Noble Avenue	Van Nuys
Van Nuys High school	6535 Cedros Avenue	Van Nuys
California Flight School	16425 Hart Street	Van Nuys
Independence High School	6501 Balboa Boulevard	Van Nuys
Daniel Pearl Magnet High School	6649 Balboa Boulevard	Van Nuys
Valley Alternative School	6701 Balboa Boulevard	Van Nuys
Mulholland Middle School	17120 Vanowen Street	Van Nuys
High Tech Los Angeles	17111 Victory Boulevard	Van Nuys
Magnolia Science Academy 2	17125 Victory Boulevard	Van Nuys
Gault Street Elementary School	17000 Gault Street	Van Nuys

Source: LA County 2020

4.5.2 Regulatory Setting

4.5.2.1 Federal Clean Air Act

The Clean Air Act (CAA) governs air quality in the United States and is enforced by the USEPA. The USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). As required by the CAA, the NAAQS have been established for seven major air pollutants: CO, NO_2, O_3, $PM_{2.5}$, PM_{10}, SO_2, and Pb. Primary standards set limits to protect public health, including the health of at-risk populations such as people with pre-existing heart or lung disease (such as asthmatics), children, and older adults. Secondary standards set limits to protect public welfare, including protection against visibility

impairment, damage to animals, crops, vegetation, and buildings. The CAA requires the USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for primary standards based on whether the NAAQS have been achieved. The USEPA has classified the South Coast Air Basin as a nonattainment area for O_3, $PM_{2.5}$, and Pb and a maintenance area for PM_{10}, CO, and NO_2.

In addition to the criteria pollutants, the air toxics provisions of the CAA require the USEPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112 of the CAA, the USEPA establishes National Emission Standards for Hazardous Air Pollutants. The list of Hazardous Air Pollutants or air toxics includes specific compounds that are known or suspected to cause cancer or other serious health effects.

4.5.2.2 California Clean Air Act

In addition to being subject to the requirements of the CAA, air quality in California is also governed by the California Clean Air Act (CCAA). In California, the CCAA is administered by CARB at the State level and by the air quality management districts and air pollution control districts at the regional and local levels.

The California Ambient Air Quality Standards (CAAQS) are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, $PM_{2.5}$, and PM_{10}.

4.5.2.3 SCAQMD Rules 402 and 403

The SCAQMD has established various rules to manage air quality in the Basin, including Rules 402 and 403. Rule 402 (Nuisance) states that a person should not emit air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Rule 403 (Fugitive Dust) controls fugitive dust through various requirements including, but not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the proposed Project site, and maintaining effective cover over exposed areas.

4.5.3 Environmental Impacts

4.5.3.1 Significance Thresholds

In its role as the local air quality regulatory agency, the SCAQMD recommended thresholds of significance for evaluating air quality impacts. To determine whether air quality impacts from the proposed Project or Alternatives may be significant, impacts are evaluated and compared to the criteria in Table 4.5-3. If impacts equal or exceed any of the criteria in Table 4.5-3, they are considered significant. SCAQMD is currently in the process of developing an "Air Quality Analysis Guidance Handbook" (Handbook) to replace the SCAQMD CEQA Handbook. Until the Air Quality Analysis Guidance Handbook becomes available, the SCAQMD provides supplemental information to assist in air quality analysis. Specifically, the SCAQMD provides Localized Significance Thresholds (LSTs) for projects that are five acres or less. The proposed Project is in Source Receptor Area 2 and to provide a conservative assessment, is considered a 1-acre construction site for the purpose of comparing to the relevant LSTs. As such, to determine whether air quality impacts from the proposed Project may be significant, impacts will also be evaluated and compared to the LSTs for 1-acre project sites as summarized in Table 4.5-4 for Source Receptor Area 2.

Table 4.5-3. SCAQMD Air Quality Mass Daily Significance Thresholds

Pollutant	Mass Daily Thresholds (Construction)	Mass Daily Thresholds (Operation)
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

Source: SCAQMD 2019

lbs/day = pounds per day

Table 4.5-4. Emission Localized Significance Thresholds for Construction and Operation in Source Receptor Area 2 (1-Acre Project Site, 500 Meters from Sensitive Receptor)

Pollutant	Localized Significance Thresholds (pounds per day)	
	Construction	Operation
NO_x	245	245
CO	7,724	7,724
PM_{10}	146	36
$PM_{2.5}$	77	25

Source: SCAQMD 2008

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

Less than Significant. The proposed Project is located within the South Coast Air Basin, which is under the jurisdiction of the SCAQMD. The SCAQMD is the air pollution control agency primarily responsible for preparing the Air Quality Management Plan (AQMP), which is a comprehensive air pollution control program for making progress towards and attaining the state and federal ambient air quality standards. The most recent AQMP was adopted by the Governing Board of the SCAQMD on March 3, 2016 (SCAQMD, 2016). An inventory of existing emissions from industrial facilities is included in the baseline inventory in the 2016 AQMP, as well as projections of the future emissions which are based on source category growth factors provided by the Southern California Association of Government. The 2016 AQMP also identifies emission reductions from existing sources and air pollution control measures that are necessary to comply with applicable state and federal ambient air quality standards. A significant impact would occur if the proposed Project were not consistent with the AQMP.

The City is proposing the distribution of recycled water for municipal use which would reduce the City's discharge of treated water to the Los Angeles River, while proportionally increasing the delivery of recycled water to various users within the service area. This proposed change would require the construction of a new valve and pipeline. The proposed Project does not involve the installation of any new permanent or temporary equipment that would require permitting under the AQMP or SCAQMD permitting rules and regulations. Therefore, the proposed Project is expected to comply with all existing air quality rules and future compliance requirements.

An average of approximately 15 workers would be necessary during construction. These are only temporary workers who would be supplied by the existing local labor pool. Therefore, the proposed Project would also be consistent with the 2016 AQMP population and employment forecasts.

The proposed Project would serve existing and intended land uses and would be consistent with the goals and policies of the 2016 AQMP. It would not affect regional employment or job growth. Existing uses on and surrounding the proposed Project site would not be changed by the proposed Project. Furthermore, as set forth in air impact criteria (b) below, the proposed Project would not lead to an exceedance of any applicable air quality standards.

The proposed Project would not conflict with or obstruct implementation of the AQMP or the other applicable plans described above. Therefore, the proposed Project would have a less than significant impact relative to this impact criteria.

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

Less than Significant. Construction-related emissions were estimated using SCAQMD's CalEEMod 2016.3.2 model (refer to Appendix A) based on assumptions from the City, including the proposed Project's construction schedule detailed in Section 2.4. Short-term construction emissions (e.g., off-road equipment, worker vehicle trips, excavating, and trenching) associated with the proposed Project were evaluated. Table 4.5-5 below provides a summary of estimate daily construction emissions, based on construction equipment estimates provided in the Project Description throughout the construction period. Note that construction would not be continuous throughout this entire duration. Initial analysis of criteria emissions from equipment operations indicates that incremental emissions would be below SCAQMD significance thresholds and LSTs for Source Receptor Area 2.

Table 4.5-5. Construction Emissions Estimates (Daily)

Pollutant	Emissions (pounds per day)	SCAQMD Construction Significance Thresholds (pounds per day)	SCAQMD Construction Localized Significance Thresholds (1-acre site, Mass Daily Thresholds)	Significant?
NO_X	32.6	100	245	No
VOC	3.4	75	--	No
PM_{10}	1.6	150	146	No
$PM_{2.5}$	1.2	55	77	No
SO_X	0.08	150	--	No
CO	23.6	550	7,724	No

As shown in Table 4.5-5, the construction of the proposed Project would not result in emissions that would exceed the SCAQMD's regional thresholds. As a result, construction of the proposed Project would not significantly contribute to an existing violation of air quality standards for regional pollutants (e.g., ozone). In terms of local air quality, the proposed Project would not produce significant emissions exceeding SCAQMD's LSTs for NOx, CO, PM_{10}, or $PM_{2.5}$ during the construction phase. Compliance with existing SCAQMD regulations, including Rule 403, which is designed to reduce fugitive dust emissions, would ensure PM_{10} and $PM_{2.5}$ emissions during site preparation and construction do not exceed localized thresholds recommended by SCAQMD.

No development or changes in current operations are proposed by the proposed Project, aside from the reduction in treated effluent discharges and increased deliveries of recycled water to various users. As such, the proposed Project would result in a change to the operational emissions for the DCTWRP.

Accordingly, proposed Project impacts related to regional and local emissions during construction and operation would be less than significant.

AIR (c). Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. Land uses that are generally considered more sensitive to air pollution than others are as follows: hospitals, schools, residences, playgrounds, child-care centers, athletic facilities, and retirement/convalescent homes. The proposed Project site is in the middle of the second largest recreational open space areas in the San Fernando Valley. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with the recreation places a high demand on the human respiratory function. The nearest sensitive receptor to the proposed Project site is the Woodley Park outdoor fitness facility directly northwest of the Japanese Garden area of the DCTWRP. As discussed above, SCAQMD has developed LST look-up tables for project sites that are one, two, and five acres in size to simplify evaluation of localized emissions at small sites. LSTs are provided for each Source Receptor Area and various distances from the source of emissions and represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards in the affected area. In the case of this analysis, the proposed Project site is in Source Receptor Area 2 and the nearest sensitive use is the fitness facility at Woodley Park approximately within 300 meters from proposed construction activities. Therefore, the LSTs for a 1-acre site and receptors located within 500 meters are used to address the potential localized NO_X, CO, PM_{10}, and $PM_{2.5}$ impacts to the area surrounding the proposed Project site. As discussed for Impact (b) above, emissions generated during construction were calculated with the SCAQMD's CalEEMod model. The predicted emissions associated with construction are presented in Table 4.5-5 above. As shown in Table 4.5-5, construction of the proposed Project would not exceed the SCAQMD's LST for the specified pollutants. Due to the uncertainty in assessing cancer risk from very short-term exposures, the Office of Environmental Health Hazard Assessment (OEHHA) does not recommend assessing cancer risk for projects lasting less than two months at the Maximum Exposed Individual Residential (MEIR) receptor (OEHHA 2015). Accordingly, since the project proposes a total of up to 6 days of construction activity over a 2 to 3-month period, a Health Risk Assessment is not warranted for the Project. Furthermore, as analyzed in City of Los Angeles guidance (https://planning.lacity.org/odocument/e1a00fbf-6134-4fa9-b6fd-54eee631effb/City_of_LA_-_Air_Quality_and_Health_Effects_and_Attachments.pdf), direct correlation of a project's pollutant emissions and anticipated health effects is currently infeasible, as no expert agency has approved a quantitative method to reliably and meaningfully translate mass emission estimates of criteria air pollutants to specific health effects for the scale of projects analyzed for projects such as the proposed Project. Therefore, impacts related to localized pollutant concentrations during construction would be less than significant. Since the proposed Project does not propose development or changes in current DCTWRP operations beyond the reduction in treated effluent discharges and increased deliveries of recycled water to various users per the proposed Project, there would be no impact associated with operations.

AIR (d). Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant. During construction, diesel emissions from construction equipment may be sources of odor. These emissions would be temporary and minimal based on the small number of heavy

vehicles that would be required for construction of the proposed Project. Further, as no development or changes in current operations are proposed by the Project, aside from the reduction in treated effluent discharges and increased deliveries of recycled water to various users, no objectionable odors affecting a substantial number of people are expected as a result of implementation of the proposed Project. As such, impacts would be less than significant.

4.6 Biological Resources (BIO)

This section evaluates existing biological resources at the proposed Project components and describes the impacts resulting from implementation of the proposed Project.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

4.6.1 Environmental Setting

Due to major flood events at the beginning of the 20th century, most of the 55-mile-long Los Angeles River was lined with concrete by the 1950s. In the San Fernando Valley, there is a section of the river with a soft bottom at the Sepulveda Flood Control Basin, upstream from and unaffected by the proposed Project. At the eastern end of the San Fernando Valley, the river bends around the Hollywood Hills and flows through Griffith and Elysian Parks, in an area known as the Glendale Narrows. This area includes an approximately eight mile stretch of natural bottom river that extends from Riverside Drive near Griffith Park to the Figueroa Bridge in Cypress Park. All other sections of the river between the Sepulveda Basin and the Willow Street in Long Beach have a concrete bottom and concrete walls on both sides, with sheet flow of water across part or all of the channel in some stretches of the river, or a narrow low-flow channel in the

center surrounded by concrete aprons with sheet flow over part or all of the remainder of the channel in other stretches. The Los Angeles River estuary is a tidally influenced three-mile soft-bottom channel with boulder rip-rap reinforced sides between Willow Street and Queensway Bay in Long Beach.

This Initial Study has relied on the Los Angeles River reach designations established by the Los Angeles RWQCB. For Biological Resources, however, the Corps developed a more granular reach designation system that is better suited to this resource category and is used in this Section. Specifically, the Corps developed the Los Angeles River Ecosystem Restoration Feasibility Study to evaluate alternatives for restoring 11 miles of the Los Angeles River from approximately Griffith Park (at the beginning of the Glendale Narrows) to downtown Los Angeles (a few miles downstream of the end of the Glendale Narrows natural bottom area). The feasibility study described channel morphology within different reaches of the Glendale Narrows, as well as the biological resources present in each of these reaches (Corps, Los Angeles District 2018). Within this Corps Study, segments of the Glendale Narrows were delineated into sub-reaches according to habitat and ecosystem services as listed below and shown in Figure 4.6-1. For the purposes of describing the environmental setting within the Glendale Narrows, all references to reaches in this section refer to these specific sub-reaches.

- Reach 1 – Pollywog Park/Headworks to the Midpoint of the Bette Davis Park
- Reach 2 – Midpoint of Bette Davis Park to the upstream end of Ferraro Fields
- Reach 3 – Ferraro Fields to Brazil Street
- Reach 4 – Brazil Street to Los Feliz Blvd
- Reach 5 – Los Feliz Blvd to the Glendale Freeway
- Reach 6 – Glendale Freeway to the I-5 Freeway
- Reach 7 – I-5 Freeway to the Main Street Bridge
- Reach 8 – Main Street Bridge to the First Street Bridge

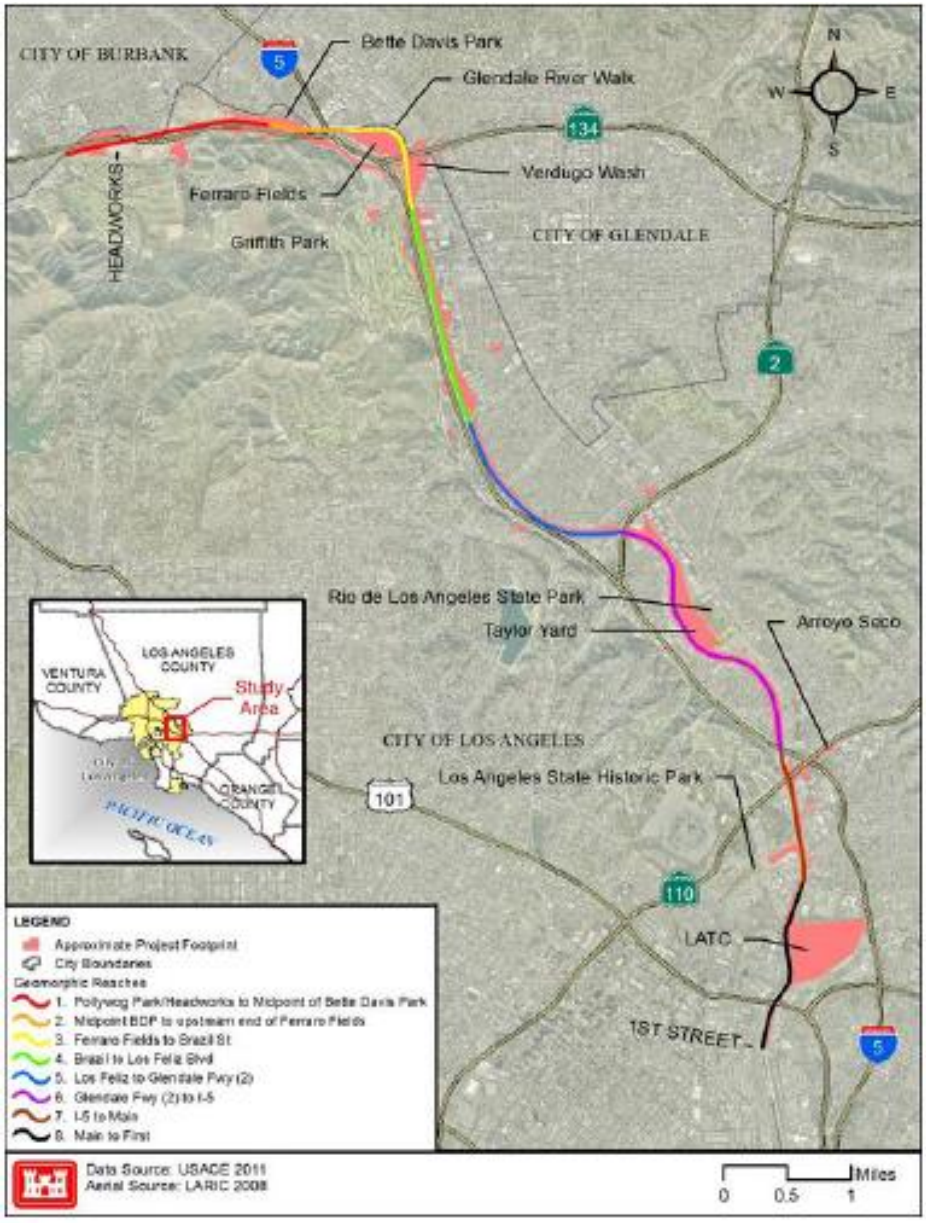

Figure 4.6-1. Sub-Reaches within the Glendale Narrows Reach of the Los Angeles River

4.6.1.1 Description of Habitat by River Segment

The following sub-sections describe the habitat present within each of the major reaches of the Los Angeles River (from upstream to downstream), as defined by the Corps and described in the previous subsection.

Upper Los Angeles River

This section of the Los Angeles River extends from the Sepulveda Dam downstream to the confluence of the Burbank/Western Channel (Riverside Drive near Griffith Park). This stretch of the river was channelized in the late 1940s to early 1950s. The river channel has a concrete-lined bottom with shallow sheet flow of water across all or most of the channel width (LADWP 1996). During the warmer months

of the year, there is extensive algal growth on the concrete bottom and a resulting richness of invertebrates. Such habitats are favored by birds, particularly during their fall migration (July through September) (Garrett 1993).

The Sepulveda Dam Reservoir, located upstream from the Japanese Garden discharge to the Los Angeles River and therefore not affected by this proposed Project change, provides wetland, riparian, and upland habitats that are occupied by a variety of small mammals, reptiles, and birds. Although those habitats are present in the Sepulveda Dam Reservoir, they are generally highly disturbed by recreational use, invasive species, maintenance, and flood control practices. The vegetation and habitat around the DCTWRP are primarily characterized as open space with grassy areas, large trees, and recreational fields. A narrow riparian zone is found along Haskell Creek on the eastern boundary of the leased property. The remainder of the available habitat surrounding the Plant is either developed for recreation consists of upland habitat.

The Los Angeles River Watershed Monitoring Program assessed the health of the Los Angeles River system from 2009 through 2019 (Council for Watershed Health and Aquatic Bioassay Consulting and Laboratories, Inc. 2019). The California Stream Condition Index (CSCI) was used to assess the condition of the benthic macroinvertebrate community. CSCI scores assign ratings of the health of the benthic macroinvertebrate community as: 1) likely intact condition (score > 0.92), 2) possibly altered condition (score from 0.80 to 0.91), 3) likely altered condition (score 0.63 to 0.79), and 4) very likely altered condition (score < 0.62). The Southern California Index of Biotic Integrity (SoCal IBI) was used to assess the condition of the algal community, using both diatoms and soft-body algae as indicators. The SoCal IBI scores assign ratings of the health of the algal community as 1) above reference condition (score > 57) or 2) below reference condition (score < 57). Riparian wetland condition was assessed using the California Rapid Assessment Method (CRAM). CRAM scores assign ratings of the health of the riparian wetland community as 1) likely intact condition (score > 79), 2) possibly altered condition (score of 72 to 79), and 3) very likely altered condition (score < 63).

Several random and targeted sites within this upper river stretch were sampled from 2009 through 2019 (Council for Watershed Health and Aquatic Bioassay Consulting and Laboratories, Inc. 2019). CSCI scores for the health of the benthic macroinvertebrate community all fell within the possibly altered condition, likely altered condition, and very likely condition categories. SoCal IBI scores for the health of the algal community all fell within the below reference condition category. CRAM scores for the health of the riparian wetlands all fell within the very likely altered condition category.

Glendale Narrows

The Glendale Narrows includes approximately eight miles of the Los Angeles River with natural bottom. It extends from the confluence of the Burbank/Western Channel (from Riverside Drive near Griffith Park) downstream to just north of the Arroyo Seco confluence (near Figueroa Bridge in Cypress Park).

The Los Angeles River Watershed Monitoring Program assessed the health of the Los Angeles River system, including the Glendale Narrows, from 2009 through 2019 (Council for Watershed Health and Aquatic Bioassay Consulting and Laboratories, Inc. 2019). The CSCI was used to assess the condition of the benthic macroinvertebrate community. Several random and targeted sites within the Glendale Narrows were sampled from 2009 through 2019 (Council for Watershed Health and Aquatic Bioassay Consulting and Laboratories, Inc. 2019). CSCI scores for the health of the benthic macroinvertebrate

community all fell within the possibly altered condition, likely altered condition, and very likely condition categories. SoCal IBI scores for the health of the algal community all fell within the below reference condition category. CRAM scores for the health of the riparian wetlands all fell within the very likely altered condition category.

Vegetation within the river channel can inhibit the channel's capacity to convey floodwaters. The channel is designed to be maintained free of vegetation to avoid impacts to flood conveyance and channel structures. However, lack of funds for maintenance has resulted in substantial vegetation growing within the channel. Due to limited funds available to maintain vegetation in the channel, Corps has focused on removing non-native vegetation using both herbicide and mechanical means. Non-native plants often out-compete natives, degrading the ecological vitality and productivity of native habitats. The most prevalent non-native and invasive plant is giant reed (*Arundo donax*). It spreads quickly, has little habitat value, and contributes to fire hazards through fuel loading. Other invasive species targeted by removal efforts include tree of heaven (*Ailanthus altissima*), Mexican fan palm (*Washingtonia robusta*), castor bean (*Ricinus communis*) and eucalyptus (*Eucalyptus* spp.) (Corps, Los Angeles District 2015).

Vegetation becomes established in the river channel where sediment tends to accumulate. As gravel, mud, and debris become trapped in the channel bed, vegetation can become rooted and contribute to additional gravel, mud, and debris collection. This process can result in sizeable areas of vegetation establishment, including native and non-native grasses, trees, and shrubs within the non-concrete (or "soft river bottom") channel bed in Reach 2. In Reaches 1 and 3, where concrete bed exists, minimal accumulation of sediment occurs and supports hummocks of herbaceous vegetation, which are typically washed out during high flows. Riparian vegetation present in Reaches 1-3 includes communities that are narrow and disturbed throughout these reaches and occupy only small and disconnected areas. Several small patches of riparian habitat are located within the river channel and are subject to occasional mechanical removal by the Corps, with most recent efforts focused on non-native removal. Vegetation growth at Verdugo Wash has become a concern for inhibiting water flow and all vegetation is periodically mechanically removed in Reach 3. Habitat value of these vegetation communities is degraded due to disturbance, small size, continuous noise of the adjacent highways, and presence of humans (Corps, Los Angeles District 2015).

Reaches 4, 5, and 6 have extensive areas of natural bottom, allowing plants to become more readily established. As a result, vegetation occupies much of the channel in these reaches, forming a nearly continuous strip of riparian habitat composed of native and non-native grasses, shrubs, and trees. In contrast to most of the upper reaches, vegetation that grows beneath the overpasses has been removed. In particular, extended bridge piers beneath Hyperion and Los Feliz Boulevards require vegetation removal to allow adequate flow conveyance. Riparian communities continue south throughout the reaches and stop just upstream of the Interstate 5 overpass, where the channel bed becomes concrete once again (Corps, Los Angeles District 2015).

Herbaceous and woody species in these unlined reaches consist of low elevation mats and large islands of southern willow scrub vegetation. Some of these vegetated areas are so overgrown that physical access to and through them is quite restricted. Dominant species include: black willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii*), and arroyo willow (*Salix laevigata*). Emergent marsh is dominated by cattail and bulrush. Exotic species include giant reed and non-native species of ash

(*Fraxinus* spp.). While scouring during high floods has at times cleared some of the understory vegetation in these reaches, well-rooted willows have persisted (Corps, Los Angeles District 2015).

Because of the river channel's scarce vegetation, minimal connection to other habitat areas, and extremely limited riparian communities, wildlife species that are the most tolerant of human activity and the extremely modified landscapes inhabit the area. Common mammals include opossum (*Didelphis virginiana*), black rat (*Rattus rattus*), raccoon (*Procyon lotor*), California ground squirrel (*Spermophilus beecheyi*), fox squirrel (*Sciurus niger*), striped skunk (*Mephitis mephitis*), coyotes (*Canis latrans*), and several species of bats (Corps, Los Angeles District 2015).

Though abundance of native bird species is limited by habitat quantity and quality along the river, diversity of native birds in the study area fluctuates with seasonal migration and can be relatively high. Resident birds use the existing small and intermittent pockets of vegetation along the waterway to nest, roost, as a base for feeding, and to take cover. Birds commonly found along the river corridor include American robin (*Turdus migratorius*), red-winged black bird (*Agelaius phoeniceus*), house sparrow (*Passer domesticus*), killdeer (*Charadrius vociferous*), mallard (*Anas platyrhynchos*), northern mockingbird (*Mimus polyglottos*), common yellowthroat (*Geothlypis trichas*), swallows (e.g., *Hirundo* spp. and *Petrochelidon* spp.), and yellow warbler (Dendroica petechia). In addition, bird species commonly seen in the city are also found within the Glendale Narrows, including: rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), and house finch (*Carpodacus mexicanus*). Migratory species include shorebirds, wading birds, and ducks of the Pacific Flyway. Black willow thickets provide numerous perching and nesting opportunities for raptors and songbirds that forage and nest in riparian areas. Sandbars, shallow pools, and emergent vegetation at the edges of the channel provide opportunities for waterfowl, shorebirds, and other species to forage and to nest (Corps, Los Angeles District 2015; ESA 2018).

Herpetofauna in the Los Angeles River area consists of a variety of amphibians and reptiles. Salamanders that may occur within the study footprint include, arboreal salamander (*Aneides lugubris*), ensatina (*Ensatinae schscholtzii*), and black-bellied slender salamander (*Batrachoseps nigriventris*). Three frogs may occur in the study area including western toad (*Anaxyrus boreas*), Pacific tree frog (*Hyla regilla*), and bullfrog (*Rana catesbeiana*). Six lizards potentially occur within the study area including: California legless lizard (*Anniella stebinsii*), western whiptail (*Cnemidophorus tigris*), western skink (*Eumeces skiltonianus*), southern alligator lizard (*Gerrhonotus multicarinatus*), western fence lizard (*Sceloporus occidentalis*), and side-blotched lizard (*Uta stansburiana*). Finally, six snakes are considered to occur within the study area including western rattlesnake (*Crotalus viridis*), ringneck snake (*Diadophis punctatus*), common kingsnake (*Lampropeltis getulus*), California whipsnake (*Masticophis lateralis*), gopher snake (*Pituophis melanoleucus*), and two-striped garter snake (*Thamnophis hammondii*) (Corps, Los Angeles District 2015).

Seven species of fish historically occurred in the freshwaters of the River including the now endangered species of southern California Distinct Population Segment of steelhead (*Oncorhynchus mykiss*) and unarmored threespine stickleback (*Gasterosteusaculeatus williamsoni*), the now threatened species of Santa Ana sucker (*Catostomus santaanae*) and arroyo chub (*Gila orcuttii*) in its native habitat, the species of concern Pacific lamprey (*Lampetra tridentata*), and the non-listed species Pacific brook lamprey (*Lampetra pacifica*) and Santa Ana speckled dace (*Rhinichthys osculus*) (Corps, Los Angeles District 2015).

The City of Los Angeles conducted a fish survey of the River in September 2004 (LADWP 2004) with a 1-day field survey at Balboa Boulevard (upstream of the proposed Project), Los Feliz Boulevard (Reach 4), and near State Route 2 (Reach 2). Six non-native species were collected, including mosquitofish (*Gambusia affinis*), green sunfish (*Lepomis cyanellus*), bluegill (*Lepomis macrochirus*), black bullhead (*Ameiurus melas*), fathead 46 minnow (*Pimephales promelas*), and tilapia (*Oreochromis* spp.). Mosquitofish and green sunfish were the most prevalent species captured. No native fishes were collected (Corps, Los Angeles District 2015).

In the late summer and fall of 2007, the Friends of the Los Angeles River conducted a fish study in Reaches 4-6, at four sites and on four occasions both before and after significant rainfall events. This study collected eight non-native fish species including fathead minnow, carp (*Cyprinus carpio*), black bullhead, Amazon sailfin catfish (*Pteroplichthys pardalis*), green sunfish, mosquito fish, tilapia, and largemouth bass (*Micropterus salmoides*). A total of 1,214 individuals were collected, with mosquitofish and tilapia being the most abundant. No native fish were collected (Friends of the Los Angeles River 2008).

Lower Los Angeles River

This section of the Los Angeles River extends from the Arroyo Seco confluence downstream to Willow Street. The river channel has a concrete-lined bottom with a central low-flow channel surrounded by aprons on both sides with shallow sheet flow of water across all or most of the channel width [Los Angeles River Master Plan 1996]. During the warmer months of the year, there is extensive algal growth on the concrete bottom and a resulting richness of invertebrates. Such habitats are favored by birds, particularly during their fall migration (July through September) (Garrett 1993).

The lower Los Angeles River is virtually devoid of vegetation within the channel. Any vegetation within the main River channel is composed of weedy species that have become rooted in the cracks of the channel walls or hummocks of vegetation that grow on the minimal accumulated sediment and wash out with high flows (Corps, Los Angeles District 2015).

In the lower section of the river, the water forms a thin layer over the concrete aprons surrounding a fast-moving center channel. Low quality habitat for aquatic species occurs due to the concrete bottom of the river and shallow stream that is not suitable for native fish species. However, this area is an important foraging area for shorebirds and waterfowl due to the availability of invertebrates in the water. No opportunity for nesting occurs for these birds in this segment (ESA 2018).

Eight surveys conducted in 2000 from Willow Street north to where Interstate 105 crosses the Los Angeles River demonstrated the presence of a total of 22 shorebird species within the river (Cooper 2006). The total number of shorebirds exceeded 15,000 during four of the eight surveys and more than 15 species were encountered during all six surveys conducted in August and September. The shorebird species identified in the river were: black-bellied plover (*Pluvialis squatarola*), semi-palmated plover (*Charadrius semipalmatus*), killdeer (*Charadrius vociferus*), black-necked stilt (*Himantopus mexicanus*), American avocet (*Recurvirostra americana*), greater yellowlegs (*Tringa melanoleuca*), lesser yellowlegs (*Tringa flavipes*), solitary sandpiper (*Tringa solitaria*), willet (*Catoptrophorus semipalmatus*), spotted sandpiper (*Actitis macularius*), semi-palmated sandpiper (*Calidris pusilla*), western sandpiper (*Calidris mauri*), least sandpiper (*Calidris minutilla*), Baird's sandpiper (*Calidris bairdii*), pectoral sandpiper (*Calidris melanotos*), dunlin (*Calidris alpina*), short-billed dowitcher (*Limnodromus griseus*), Wilson's

phalarope (*Phalaropus tricolor*), red-necked phalarope (*Phalaropus lobatus*), and red phalarope (*Phalaropus fulicarius*).

Los Angeles River Estuary

The estuary is a three-mile, soft-bottom stretch of the river between the Willow Street Bridge to Queensway Bay in Long Beach (Figure 4.1-16). The reach below Willow Street has a soft bottom channel, rock and silt substrate with boulder rip-rap reinforced sides (ESA 2018). Depth varies with tidal stage, between 1 to over 2 meters in the center of the channel. The banks drop off sharply except in a few areas where depositional sandbars have formed. Vegetation along the east bank includes dense cattails and tules, mixed with numerous non-native annuals and perennials, such as *Arundo donax*, castor bean, and cocklebur. Much of the bank from the channel to the rip rap is routinely mowed to bare earth for flood control purposes. A few scattered willow trees remain and serve as shade and nesting areas. Riparian habitat is slightly more consistent on the west bank, as it is tightly constrained to a 5- to 10-meter width below the concrete slope but is not as rigorously removed. There is a depositional "island" in the center of the channel just downstream of the Willow Street concrete apron that supports a mixed stand of mature willows surrounded by cattail and tule thickets (Friends of the Los Angeles River 2016).

Salinity is variable throughout the reach depending on the tidal stage, with levels from 0 parts per thousand on the concrete apron below Willow Street to 10 ppt during a high tide. Water temperature varies between 16 to 29°C. Five fishing surveys were conducted between May 2014 and August 2015 over a variety of tidal stages, including both morning and afternoon sampling. Fish species collected or observed included mosquitofish, fathead minnows, larval and adult smelt, carp, striped mullet, topsmelt, California killifish, and anchovies (Friends of the Los Angeles River 2016).

The estuary contains approximately 40 acres of rocky sandbar that largely supports ruderal, weedy vegetation along the edges of this area, largely in the northern end. The change in tide and river flow makes the acres of land variable in this segment. The sandbar habitat supports an abundance and diversity of shorebirds and waterfowl that forage in the rocky substrate. However, the native vegetation has largely been eliminated in this area. The sandbar habitat is of low quality because it lacks the native vegetation typical of a brackish marsh, is covered in invasive plants, and the natural hydrology of the river has been altered by channelization. Nonetheless this segment is still utilized by foraging shorebirds and waterfowl that have limited other native areas to use (ESA 2018).

Algae sampling was conducted at one site (Willow Street) in the estuary on two occasions in 1990/1992 (Garrett 1993). Freshwater algae present included Cladophora spp., Pediastrum boryanum, Scenedesmus acuminatus, Ulothrix (zonata), Oscillatoria sp., and Euglena sp.

A survey of vascular plants was also conducted at one site (Willow Street) in the estuary in 1991/1992 (Garrett 1993). This site featured a broad gravel bar reaching generally from bank to bank with the river channel running through the middle. There were no trees or tree forms sighted during the visits. A few young specimens of tree species were found, however. Most of the vegetation consisted of Baccharis, Ricinus and emergent Typha, Polygonum, Ludwegia and Xanthium. Most of the shrubby specimens and many of the herbaceous were found along the central channel. There were other herbaceous species scattered on the drier parts of the gravel portions of the riverbed. The lack of larger specimens was probably because the Los Angeles County Public Works Department cleaned out half of the channel each year, one year cleaning the west side of the channel, the next year the east side.

The CSCI was used by the Los Angeles River Watershed Monitoring Program to assess the condition of the benthic macroinvertebrate community in the Los Angeles River (Council for Watershed Health and Aquatic Bioassay Consulting and Laboratories, Inc. 2019). Random and targeted sites within Reach 2 of the Glendale Narrows were sampled from 2009 through 2019 (Council for Watershed Health and Aquatic Bioassay Consulting and Laboratories, Inc. 2019). CSCI scores for the health of the benthic macroinvertebrate community all fell within the very likely altered condition categories. SoCal IBI scores for the health of the algal community all fell within the below reference condition category. CRAM scores for the health of the riparian wetlands all fell within the very likely altered condition category.

4.6.1.2 Special Status Species

The greater Los Angeles Basin includes portions of the Angeles National Forest, the Santa Monica Mountains, and coastal areas where many sensitive plants and animals may occur. Sensitive species include plants or wildlife listed as threatened or endangered under the Federal Endangered Species Act (ESA) or as threatened, endangered, fully protected, or a species of concern under the state Endangered Species Act (CESA). Federal, state, and interest group watch-listed animals are also included. Special status species also include plant species designated by the California Native Plant Society (CNPS) as presumed extinct in California (List 1A); plants designated as rare, threatened, or endangered in California and elsewhere (List 1B); and plants designated as being rare, threatened, or endangered in California but more common elsewhere (List 2). Special-status species and ecosystems of concern that could occur in the proposed Project area are listed in Table 4.6-1. Potential for occurrence of the listed species in the proposed Project area are ranked: High (abundant or common)> Moderate (uncommon) > Low (rare)> Unlikely. Extirpated species are extinct in the Los Angeles River watershed.

Sixty-seven special-status wildlife species or ecosystems are known to historically or currently occur, or have the potential to occur, in the Los Angeles River Project area. These include four ecosystems, 12 flowering plant species, seven fish species, three amphibians, five reptiles, 31 bird species, and five mammals (Table 4.6-1).

Table 4-6.-1. Sensitive species and ecosystems in the Los Angeles River channel from downstream of the Sepulveda Dam to the river mouth and estuary.

Group	Species	Status	Preferred Habitat	Probability of Occurrence
Ecosystem	Riversidean Alluvial Fan Sage Scrub			Low. Degraded habitat in Tujunga Wash tributary. Not reported in proposed Project area.
Ecosystem	Southern Coast Live Oak Riparian Forest			Low. Habitat reported in Glendale and Griffith Park. Not reported in proposed Project area.
Ecosystem	Southern Cottonwood Willow Riparian Forest			Moderate. System component species dominate in unlined portion of LA River, but historic ecosystem is considered extirpated by urbanization and channelization of LA River.
Ecosystem	Southern Sycamore Alder Riparian Woodland			Low. Habitat reported in adjacent areas including Griffith Park, but not reported in proposed Project area.
Flowering Plant	California orcutt grass *Orcuttia californica*	FE, SE. 1B.1	Vernal pool, wetland.	Unlikely. Possibly extirpated in proposed Project area.
Flowering Plant	Coulter's goldfields *Lasthenia glabrata ssp. coulteri*	1B.1	Coastal salt marshes on alkaline soils.	Moderate. Reported in weedy areas adjacent to LA River in Long Beach.
Flowering Plant	Gambel's water cress *Nasturtium gambelii*	FE, ST, 1B.1	Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level.	Unlikely. Unreported in LA county since 1904. CNPS maps species as extant in Hollywood quad.
Flowering Plant	Greata's aster *Symphyotrichum greatae*	1B.3	Riparian woodland, among others.	Unlikely. Unreported in proposed Project area (Elysian Park) since 1930s. CNPS maps species as extant in Burbank quad.
Flowering Plant	Los Angeles sunflower *Helianthus nuttallii ssp. parishii*	1A	Marshes and swamps (coastal salt and freshwater).	Extirpated in proposed Project area.
Flowering Plant	Lucky morning-glory *Calystegia felix*	1B.1	Wetland and marshy places.	Unlikely. Unreported in LA county since 1890s. CNPS maps species as extirpated in proposed Project area. .

Group	Species	Status	Preferred Habitat	Probability of Occurrence
Flowering Plant	Marsh sandwort *Arenaria paludicola*	FE, SE, 1B.1	In freshwater marsh, sandy soil growing through mats of Typha, Juncus, Scirpus, etc.	Unlikely. Unreported in LA county since 1900. CNPS maps species as extant in Hollywood quad.
Flowering Plant	Nevin's barberry *Berberis nevinii*	FE, SE, 1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, north-facing slopes or in low grade sandy washes	Low. Occurs in Griffith Park adjacent to LA River, Not reported in proposed Project area.
Flowering Plant	Prostrate vernal pool navarretia *Navarretia prostrata*	1B.2	Meadows and seeps, vernal pools and grasslands.	Unlikely. Habitat preference other than proposed Project area. since early 1900s. CNPS maps species as extant in several local quads.
Flowering Plant	San Bernardino aster *Symphyotrichum defoliatum*	1B.2	Marshes and swamps, near ditches, streams, springs.	Unlikely. Unreported in proposed Project area since early 1900s. CNPS maps species as extant in Hollywood and Long Beach quads.
Flowering Plant	Slender-horned spineflower *Dodecahema leptoceras*	FE, SE, 1B.1	Chaparral, cismontane woodland, coastal scrub and flood deposited terraces and washes	Unlikely. Habitat preference more upland but could occur. Unreported in proposed Project area since early 1900s. CNPS maps species as extant in Burbank quad.
Flowering Plant	Southern tarplant *Centromadia parryi ssp. australis*	1B.1	Margins of marshes and swamps.	Low. Extirpated in proposed Project area but occurs in adjacent areas.
Fish	Arroyo chub *Gila orcuttii*	SSC	South coast flowing streams. Adapted to hypoxic conditions and large temperature fluctuations.	Low. Occurred occasionally in the watershed through the 1990s.
Fish	Pacific lamprey *Entosphenus tridentatus*	SSC	An anadromous species, spends most of its adult life in the ocean, but spawns and rears in freshwater streams.	Unlikely. Rare in LA Basin since the mid-1950s. Currently barriers within the LA River prevent upstream migration.
Fish	Santa Ana speckled dace *Rhinichthys osculus* spp. *robustus*	SSC	This species is found in a wide variety of aquatic habitats. Prefers clear, well oxygenated water, with movement due to a current or waves. Thrives in areas with deep cover or overhead protection from vegetation or woody debris. Predominantly occupy small streams of the second to third order where they feed and forage for aquatic insects.	Unlikely. Occurred in the watershed through the early 1950s.

Group	Species	Status	Preferred Habitat	Probability of Occurrence
Fish	Santa Ana sucker *Catostomus santaanae*	FT, SSC	South coast flowing waters. Prefers small to medium streams with higher gradients, clearwater, and coarse substrates.	Unlikely. Occurred in the watershed through the early 1950s.
Fish	Southern steelhead *Oncorhynchus mykiss*	FE, SE	An anadromous species, spends most of its adult life in the ocean, but spawns and rears in freshwater streams.	Unlikely. Barriers within the LA River prevent upstream migration.
Fish	Tidewater goby *Eucyclogobius newberryi*	FE	Found in shallow lagoons and lower stream reaches.	Unlikely. Regionally extant, but not reported in the LA River.
Fish	Unarmoured threespine stickleback *Gasterosteus aculeatus williamsoni*	FE, SE, FP	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams.	Extirpated in the LA River.
Amphibian	Arroyo toad *Anaxyrus californicus*	FE, SSC	Rivers with sandy banks, willows, cottonwoods, and Sycamores	Unlikely. Possibly extirpated.
Amphibian	Red-legged frog *Rana draytonii*	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Low. Suitable habitat occurs and species occurs in the watershed, but not reported in the proposed Project area.
Amphibian	Western spadefoot *Spea hammondii*	SSC	Occurs primarily in grassland habitats. Vernal pools are essential for breeding and egg-laying.	Unlikely. May still occur in Arroyo Seco tributary, but possibly extirpated in the proposed Project area due to development.
Reptile	California legless lizard *Anniella* spp	SSC	Occurs in a variety of open habitats generally in moist, loose soil with a high moisture content	Moderate. Reported occasionally near proposed Project areas. Suitable habitat may occur in open habitats adjacent to soft-bottom river areas.
Reptile	Coast horned lizard *Phrynosoma blainvillii*	SSC	Variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Low. Not reported in proposed Project areas, but suitable habitat may occur in open habitats adjacent to soft-bottom river areas.

Group	Species	Status	Preferred Habitat	Probability of Occurrence
Reptile	Southern California legless lizard *Anniella stebbinsi*	SSC	Occurs in sandy or loose loamy soils under sparse vegetation in a variety of habitats generally in moist, loose soil. They prefer soils with a high moisture content	Moderate. Reported occasionally near proposed Project areas. Suitable habitat may occur in open habitats adjacent to soft-bottom river areas.
Reptile	Two-striped garter snake *Thamnophis hammondii*	SSC	Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Moderate. Suitable habitat is found in the ponds, and in areas of slow-moving water and emergent vegetation along the edges of the black willow thickets in soft-bottom river areas.
Reptile	Western pond turtle *Emys marmorata*	SSC	Aquatic turtle found in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Needs basking sites.	Moderate. Known to occur from Sepulveda Wildlife Basin. Suitable habitat is found in soft-bottom river areas but needs access to upland habitat to lay eggs.
Bird	American peregrine falcon *Falco peregrinus anatum*	BCC, FP	Mostly among mountains ranges, river valleys, and coastlines where songbirds, ducks, and shorebirds and other prey species are plentiful. Nests on cliff ledge and man-made structures such as bridges and skyscrapers.	High. American peregrine falcon has been recorded near river areas, especially along lower river. The abundant shorebirds and waterfowl provide foraging opportunities for this species and the bridges and nearby structures provide nesting opportunities.
Bird	Bank swallow *Riparia riparia*	ST	Found near water, fields, marshes, streams, lakes. Nests in colonies in vertical banks of dirt or sand, usually along rivers or ponds, seldom away from water.	Unlikely. Nesting habitat eliminated by channelization. Likely extirpated in proposed Project area.
Bird	Black skimmer *Rynchops niger*	BCC, SSC	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.	Low. May occasionally occur in the lower LA River channel and feed in estuary.
Bird	Black tern *Chlidonias niger*	SSC	Freshwater lakes, ponds, marshes and flooded fields. At coastal lagoons & estuaries during migration	Unlikely. Former common spring and fall migrant a on the coast and in the lower LA River drainage.
Bird	Burrowing owl *Athene cunicularia*	BCC, SSC	Multiple habitats. Subterranean nester, dependent upon burrowing mammals, particularly California ground squirrel.	Low. Formerly abundant. Habitat lost to urbanization.
Bird	California brown pelican *Pelecanus occidentalis californicus*	FP	Nests on coastal islands. Roosts communally.	Low. May occasionally occur in the lower LA River channel and feed in estuary.

Group	Species	Status	Preferred Habitat	Probability of Occurrence
Bird	California condor *Gymnogyps californianus*	FE, SE, FP	Open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude.	Unlikely. Formerly common.
Bird	California least tern *Sterna antillarum browni*	FW, SE, FP	Colonial breeder on bare or sparsely vegetated, flat substrates.	Low. May occasionally feed in the estuary.
Bird	California gull *Larus californicus*	WL	Littoral waters, sandy beaches, waters and shorelines of bays, tidal mudflats, marshes, lakes, etc.	Low. May forage in the lower LA River.
Bird	Coastal California gnatcatcher *Polioptila californica californica*	FT, SSC	Obligate, permanent resident of coastal sage scrub below 2500 ft in southern California.	Low. Unlikely to occur in proposed Project area due to habitat loss.
Bird	Cooper's hawk *Accipiter cooperii*	WL	Habitat includes mature forest, open woodlands, wood edges, river groves. Typically nests in woodlands with tall trees and openings or edge habitat nearby. Increasingly found in cities where some tall trees exist.	High. Resident and migrant population in proposed Project area. Tall willows in soft-bottom areas provide suitable nesting and perching habitat for this species.
Bird	Double-crested cormorant *Phalacrocorax auritus*	WL	Colonial nester on coastal cliffs, offshore islands, and along lake margins.	High. Common winter migrant in portions of the LA River with fish including Glendale Narrows and the lower river.
Bird	Elegant tern *Thalasseus elegans*	WL	Nests on open, sandy, undisturbed beachs.	Low. May occasionally feed in the estuary.
Bird	Ferruginous hawk *Buteo regalis*	BCC, WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	Low. Scarce winter visitor at Sepulveda Basin, not reported in proposed Project area.
Bird	Least Bell's vireo *Vireo bellii pusillus*	FE, SE	Prefers dense, low, shrubby vegetation, generally within early successional stages in riparian areas with a dominance of willows (*Salix* spp.)	High. Has been recorded in the past near river areas, although no current records for this species. Black willow thickets could provide suitable nesting habitat.
Bird	Loggerhead shrike *Lanius ludovicianus*	BCC, SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands.	Low. May nest at Sepulveda Basin. More abundant outside of breeding season.

Group	Species	Status	Preferred Habitat	Probability of Occurrence
Bird	Merlin *Falco columbarius*	WL	Prefers open conifer woodland, and in migration, uses foothills, marshes, and open country. Requires semi-open terrain with trees for nest sites and open areas for hunting.	High. Recorded near river areas. Winters in Southern California but migrates north to breed.
Bird	Northern harrier *Circus hudsonius*	SSC	Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountains.	Unlikely. Rare winter visitor to open fields adjacent to river such as at Sepulveda Basin. Otherwise, habitat not found in proposed Project area.
Bird	Osprey *Pandion haliaetus*	WL	Found near water, either fresh or salt, where large numbers of fish are present. Nests in large tree near water.	Moderate. Recorded as foraging within LA River. sections. Black willow thickets provide suitable nesting habitat.
Bird	Southwestern willow flycatcher *Empidonax traillii extimus*	FE, SE	Prefers dense vegetation throughout all vegetation layers present in riparian areas. Prefers nesting over or in the immediate vicinity of standing water.	Low. Habitat quality is poor for this species due to the low density of vegetation within the LA River and the degradation of habitat from invasive plants, homeless camps, and trash. This species could use black willow thickets as a migratory stopover but would not be expected to use the proposed Project area.
Bird	Sharp-shinned hawk *Accipiter striatus*	WL	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. Nests usually within 275 ft of water.	Moderate. Occasionally reported in LA River channel. Not likely to nest due to the low density of trees and degraded habitat.
Bird	Swainson's hawk *Buteo swainsoni*	ST, BCC	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, agricultural lands with groves or lines of trees.	Unlikely. Uncommon seasonal migrant more likely in upper LA River.
Bird	Tricolored blackbird *Agelaius tricolor*	ST, BCC, SSC	Highly colonial species, most numerous in central valley. Requires open water, protected nesting substrate.	Moderate. Seasonally occur at Sepulveda Basin and parks etc. in region.
Bird	Vaux's swift *Chaetura vauxi*	SSC	Open sky over forest, lakes, and rivers. Often feeds low over water. Nests and coniferous and mixed forest, mainly old-growth forest.	High. Seasonally very abundant in spring and fall, foraging over the LA River channel, especially in the Glendale Narrows area.
Bird	Western snowy plover *Charadrius nivosus nivosus*	FT, BCC, SSC	Sandy beaches, salt pond levees & shores of large alkali lakes.	Low. Occasional fall transient along the lower LA River channel in Long Beach.

Group	Species	Status	Preferred Habitat	Probability of Occurrence
Bird	Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT, SE, BCC	Woodlands, thickets, orchards, streamside groves. In the west, mostly nests in streamside trees, including cottonwood-willow groves in arid country.	Unlikely. Presumed extirpated due to loss of habitat from development.
Bird	White-faced ibis *Plegadis chihi*	WL	Shallow freshwater marsh.	Low. Rare visitor in lower LA River and Sepulveda Basin.
Bird	White-tailed kite *Elanus leucurus*	FP	Open groves, river valleys, marshes, grasslands. Main requirements are trees for perching and nesting, and open ground with high populations of rodents.	Low. Recorded near river areas. More common near Sepulveda Basin.
Bird	Yellow-breasted chat *Icteria virens*	SSC	Brushy tangles, briars, stream thickets. Breeds in very dense scrub (such as willow thickets) and briary tangles, often along streams and at the edges of swamps or ponds.	Low. Formerly abundant in near river areas. Black willow thickets provide suitable nesting habitat but occurrence of individuals is scarce and transient.
Bird	Yellow Rail *Coturnicops noveboracensis*	BCC, SSC	Summer resident in eastern Sierra Nevada. Freshwater marshlands.	Unlikely. Single occurrence reported in early 1950s.
Bird	Yellow warbler *Setophaga petechia*	BCC, SSC	Restricted to streamside thickets.	High. Common summer resident within black willow thickets in soft-bottom river areas. Nesting known to occur in proposed Project area.
Mammal	American badger *Taxidea taxus*	SSC	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats with friable soils. Requires open, uncultivated ground and sufficient burrowing rodent prey.	Low. One occurrence record for this species in the river area, but the information is limited for the record and does not specify location. The species could use black willow thickets as a migratory corridor, but the river area lacks friable soils, sufficient burrowing rodent prey and uncultivated ground needed for this species to perform most life functions.
Mammal	Mountain Lion *Puma concolor* Southern California / Central Coast ESU	SCS	Inhabit diverse habitats across most of California wherever deer are present.	**Low.** Occurs in Griffith Park adjacent to LA River and in the upper watershed. Historically reported in proposed Project area.

Group	Species	Status	Preferred Habitat	Probability of Occurrence
Mammal	Hoary bat *Lasiurus cinereus*	WBWG Medium Priority	A solitary species that utilizes diverse forest habitats that contain a mixture of forest and small openings that provide edge habitat. Roosting sites include squirrel nests, woodpecker holes, and out in the open on the trunks of old trees. Roosts include dense vegetation above with unobstructed space below, allowing bats to drop to gain flight and no potential perches beneath.	Low. Occasional occurrences relatively near the river area, with last reported in 1992. Suitable foraging habitat is present within the black willow thickets, but the river area lacks sufficient roosting areas for the species.
Mammal	Silver-haired bat *Lasionycteris noctivagans*	WBWG Medium Priority	Primarily a coastal and montane forest dweller, feeding over streams, ponds & open brushy areas.	Low. Suitable habitat is present in the proposed Project area. One occurrence reported in 1986 near the LA River estuary.
Mammal	Western mastiff bat *Eumops perotis californicus*	SSC, WBWG High Priority	Open, semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, chaparral. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Low. Occasional occurrences in reported near river area. Suitable habitat may be present in proposed Project area, but not preferred habitat type.
Mammal	Western yellow bat *Lasiurus xanthinus*	SSC, WBWG High Priority	Foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Low. One occurrence in 1984 near river area. Suitable foraging habitat is present in proposed Project area.

Source: Garrett 1993, Swift et al. 1993, LADWP 2004, FOLAR 2008, 2016, Corps 2015, ESA 2018, CNDDB 2020, CNPS 2020, IPAC 2021, CDFW 2020

Federal status: USFWS Listing, other non-CA specific listing

FE = Listed as endangered under the federal ESA; FT = Listed as threatened under ESA

BCC – Bird of Conservation Concern

State status: CDFW Listing

SE = Listed as endangered under the CESA; ST = Listed as threatened under the CESA

SSC = Species of Special Concern as identified by the CDFW; FP = Listed as fully protected under CDFW code; WL = Listed as a Watchlist species by CDFW

CNPS List 1A = presumed extinct in California; List 1B = plants designated as rare, threatened, or endangered in California and elsewhere; List 2 = rare, threatened, or endangered plants in California but more common elsewhere

Other status:

WBWG = Listing by the Western Bat Working Group

The potential for occurrence of most of species or ecosystems listed in Table 4.6-1 are currently considered low or unlikely, primarily a result of habitat loss, including urbanization and river channelization, throughout the proposed Project area. Still, one ecosystem (Southern Cottonwood Willow Riparian Forest), one flowering plant (Coulter's goldfields, *Lasthenia glabrata ssp. coulteri*), four reptiles (southern California legless lizard, *Anniella stebbinsi*; a related undescribed California legless lizard, *Anniella* spp; two-striped garter snake, *Thamnophis hammondii*; and Western pond turtle, *Emys marmorata*), and three bird species (osprey, *Pandion haliaetus*; sharp-shinned hawk, *Accipiter striatus*; and tricolored blackbird, *Agelaius tricolor),* are moderately likely to occur in the proposed Project area based on occasional observations in the proposed Project area, or the suitability of habitat in the proposed Project area and known occurrence of the species in a similar habitat nearby.

Seven species, all birds, are considered to have a high likelihood of occurrence in the proposed Project area and most are observed commonly. Three of the birds are raptors, American peregrine falcon, *Falco peregrinus anatum*; Cooper's hawk, *Accipiter cooperii*; and merlin, *Falco columbarius*), two are songbirds (least Bell's vireo, *Vireo bellii pusillus;* yellow warbler*, Setophaga petechia*), one is a swift (Vaux's swift, *Chaetura vauxi*) and one is a waterbird (double-crested cormorant, *Phalacrocorax auritus*).

Due to significant recovery of the species since the mid-19th Century, American peregrine falcon was delisted from federal and state protection status but is still protected as a Bird of Conservation Concern (BCC) by the US Fish and Wildlife Service (USFWS) and is Fully Protected (FP) by the California Department of Fish and Wildlife (CDFW; CNNDB 2020). American peregrine falcons do not nest in the proposed Project area but have been frequently observed in the lower Los Angeles River channel in Long Beach where the prey on swifts and other birds that feed over the river channel during the day, and an American peregrine falcon has also been reported in the Glendale Narrows region of the river (Swift 1993).

Cooper's hawk is a listed as a Watchlist (WL) species by CDFW (CNDDB 2020). Cooper's hawk is a permanent resident to the Los Angeles basin, which is supplemented in winter by migration. The species nests in upstream wooded area of the Los Angeles River and are likely to forage and may nest in the Glendale Narrows section of the river on occasion (Garrett 1993).

Merlin (WL) is an occasional and migrant species in the Los Angeles Basin (Garrett 1993, CNDDB 2020). It is commonly observed in the Sepulveda Basin, upstream of the proposed Project area, and occasionally has be reported in the Glendale Narrows section of the river.

Least Bell's vireo is listed as a Federally endangered (FE) and State endangered SE) species due to habitat loss and cowbird brood parasitism (Garrett 1993, CNDDB 20020). Surveys for least Bell's vireo, were completed during the 2005 and 2007 bird-breeding season at Corps-managed areas within Los Angeles County. Least Bell's vireo were documented in the lower Sepulveda Reservoir/Los Angeles River above and downstream of Burbank Boulevard and in Reach 6 near the Taylor Yard area (Corps 2015). In 2009, no least Bell's vireo were detected. An incidental observation of an unpaired male vireo near Taylor Yard was documented in April 2013 during a one-day nesting bird survey of the area. However, a similar one-day nesting survey of the area in May 2013 did not detect vireo Marginal habitat for least Bell's vireo exists in the Los Angeles River. The only riparian vegetation exists in Reach 2 and in the Glendale Narrows Reaches 4, 5, and 6. This vegetation is linear and confined, lacks suitable adjacent

foraging habitat and is unlikely to support nesting. No breeding pairs were documented in the study area during the 2005 and 2007 surveys and were not detected during 2013 observations.

Yellow warbler (BCC, SSC) nesting in the proposed Project area is a result of cowbird brood parasitism (Garrett 1993, CNDDB 20020). Yellow warbler is a common spring and fall migrant through the area, and occasional has been reported in winter in willow thickets in the Glendale Narrows.

Vaux's swift (SSC; CNDDB 2020) are common, and occasionally abundant in the Glendale Narrows section of the Los Angeles River in spring and fall where Garrett (1993) reported flocks numbering up to 20,000 have been observed foraging on small flying insects over the river channel. Smaller flocks have been reported in winter and over other parts of the river. Vaux's swift do not nest along the river, but build nests on structures in the vicinity of the proposed Project area.

Double-crested cormorant (WL) is a fall and winter visitor in southern California (Garrett 1993, CNDDB 2020). They observed commonly foraging in waters with fish, including the Los Angeles River channel at Glendale narrows and in Long Beach.

4.6.2 Regulatory Setting

4.6.2.1 Clean Water Act

The Clean Water Act (CWA) has provisions for protecting biological resources within the aquatic environment through identification of beneficial uses and prohibitions on fill of wetlands or other waters of the United States (WOUS). The primary function of the CWA is in protecting biological resources in this instance are to ensure that any impacts to wetlands or WOUS are compensated for and provide a framework for ensuring that water quality is maintained or improved.

4.6.2.2 Endangered Species Act

The federal ESA protects threatened and endangered species by prohibiting federal actions that would jeopardize the continued existence of such species or result in destruction or adverse modification of any critical habitat of such species. If effects to listed species are anticipated, Section 7 of the Act requires consultation regarding protection of such species be conducted with the USFWS and/or the National Marine Fisheries Service prior to project implementation. (16 USC 1531, 1536).

4.6.2.3 Migratory Bird Treaty Act

Congress passed the Migratory Bird Treaty Act (MBTA) in 1918 to prohibit the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The prohibition applies to birds included in the respective international conventions between the United States and Great Britain, the United States and Mexico, the United States and Japan, and the United States and Russia.

Migratory bird species receive federal protection under the MBTA and state protection under the CEQA §15380(d). In the case of bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*), additional protection is offered under the federal Bald and Golden Eagle Protection Act. All birds, except European starlings, English house sparrows, rock doves (pigeons), and non-migratory game birds such as quail, pheasant, and grouse, are protected under the MBTA. No permit is issued under the MBTA;

however, a project would need to employ measures that would avoid or minimize impacts to protected migratory birds.

4.6.2.4 California Endangered Species Act

The CESA focuses on protecting all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation.

4.6.2.5 California Fish and Wildlife Code, Sections 1600-1607

Sections 1600 through 1607 regulate work that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; that would substantially change the bed, channel, or bank of a river, stream, or lake; or that would use material from a streambed.

4.6.2.6 Significant Ecological Area Program

Los Angeles County first began to inventory biotic resources and identify important areas of biological diversity in the 1970s. Today, the primary mechanism used by the County to conserve biological diversity is a planning overlay called a Significant Ecological Area (SEA) designated in the County's General Plan Conservation/Open Space Element. Together, the General Plan overlays and a SEA conditional use permit process are referred to as the SEA Program. SEAs are ecologically important land and water systems that support valuable habitat for plants and animals, often integral to the preservation of rare, threatened, or endangered species and the conservation of biological diversity in Los Angeles County. While SEAs are not preserves, they are areas where Los Angeles County deems it important to facilitate a balance between development and resource conservation. Development activities in the SEAs are reviewed closely to conserve water and biological resources such as streams, oak woodlands, and threatened or endangered species and their habitat. The intent of the SEA regulations is not to preclude development but to allow controlled development without jeopardizing the biotic diversity of Los Angeles County. Development within the boundaries of a SEA requires a conditional use permit that is reviewed by the Significant Ecological Area Technical Advisory Committee, an advisory committee to the County's Regional Planning Commission that specializes in various areas of biology in Los Angeles County.

4.6.3 Environmental Impacts

To evaluate the effects to biological resources, the City relied upon the results of the HEC-RAS hydraulic modeling conducted for the proposed Project, which was adapted from the *Los Angeles River Environmental Flows Study* model developed by the Southern California Coastal Watershed Program (Stein et al. 2021b). To evaluate the range of potential impacts of the proposed Project, the following flow scenarios were evaluated:

- *Minimum Flow Scenario* – this scenario was used to evaluate changes in hydraulic parameters for each month based on the lowest monthly mean daily flow recorded at various locations in the Los Angeles River between January 2008 and June 2019.

- *Average Flow Scenario* – this scenario was used to evaluate changes in hydraulic parameters for each month based on the average monthly mean daily flow recorded at various locations in the Los Angeles River between January 2008 and June 2019.
- *Maximum Flow Scenario* – this scenario was used to evaluate changes in hydraulic parameters for each month based on the highest monthly mean daily flow recorded at various locations in the Los Angeles River between January 2008 and June 2019.

A full description of the model and the complete results are described in full in Section 5, Cumulative Impacts. The model results predict the flows in the Los Angeles River at each reach downstream of the DCTWRP along with the width of the wetted channel in reaches which have been designed by the Los Angeles RWQCB Basin Plan as providing beneficial uses for aquatic habitat. Each Initial Study Checklist question is presented below, and impacts are described for each reach within each question.

BIO (a). Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by CDFW or USFWS?

Upper Los Angeles River – Sepulveda Dam to Riverside Blvd

Less Than Significant. The results of minimum flow condition hydraulic modeling under two scenarios: current/existing conditions and minus the Japanese Garden discharge, are shown in Table 5.1-2. The effects of the proposed Project would result in a reduction of maximum water depth of less than half an inch, a decrease in maximum velocity of less than 5%, and no change in wetted area of the channel bottom. These minor changes in flow depth and flow velocity would not noticeably change habitat conditions for the algal and benthic invertebrate communities present on the concrete bottom of the channel which may provide foraging habitat within the Upper Los Angeles River area for candidate, sensitive, or special status species.

According to flow recommendations developed to support aquatic life and protect beneficial uses in the Los Angeles River, the flows required to support *Cladophora* spp. (algal species indicative of the health of algae and benthic invertebrate communities) would be 17 to 2,659 cubic feet per second (cfs) to provide a medium probability of supporting suitable habitat and 46-300 cfs to provide a high probability of supporting suitable habitat under summer flow conditions in the Upper Los Angeles River (Stein et al., 2021b). Flows under the average dry weather condition with the proposed Project are predicted to be 49.7 cfs, slightly above the threshold that indicates a high probability of supporting suitable habitat. Flows under the lowest dry weather condition with the proposed Project are predicted to be 28.5 cfs, above the threshold that indicates a medium probability of supporting suitable habitat. The existing flow of 35.2 cfs also indicates a medium probability of supporting suitable habitat.

Based on these minor changes to flow, velocity, and predicted alterations to benthic and algal communities that may support aquatic life, impacts to candidate, sensitive, or special status species in this reach of the Los Angeles River just below the discharge point of the DCTWRP are expected to be less than significant.

Glendale Narrows

Less Than Significant. The results of minimum flow condition hydraulic modeling under two scenarios: current/existing conditions and minus the Japanese Garden discharge, are shown in Table 5.1-2. The

effects of the proposed Project were assessed at four locations within the Glendale Narrows (Hydraulic Model Reporting Nodes LA14, Glendale, LA11, and Elysian Valley). The proposed Project would result in decreases of maximum water depth of one foot or less at all four locations during lowest dry weather, average dry weather, and highest wet weather conditions. The proposed Project would result in reductions in maximum flow velocity of zero to 0.05 ft/s at three of the locations (Glendale, LA11, and Elysian Valley) and changes in maximum flow velocity ranging from a decrease of 0.01 ft/s to an increase of 0.33 ft/s at one location (LA14) during lowest dry weather, average dry weather, and highest wet weather conditions. These minor changes in water depth and flow velocity would not noticeably change habitat conditions or adversely affect biological communities within the Glendale Narrows area.

The proposed Project would result in the loss of wetted channel areas of 0 to 5% at two of the locations within the Glendale Narrows (Hydraulic Model Reporting Nodes Glendale and LA11) during lowest dry weather, average dry weather, and highest wet weather conditions. The proposed Project would result in the loss of wetted channel areas of 0 to 4% at the LA14 location during average dry and highest wet weather conditions. However, the wetted channel area would be reduced by 28.1 ft in width (from 75.60 to 47.50 ft) under the lowest dry weather condition.[4] This occurs because some very shallow water depth areas that are present under existing conditions would be dry due to the reduced flows with the proposed Project. However, these lost areas provided little habitat value. The proposed Project would result in the loss of wetted channel areas of 1 to 3% at the Elysian Valley location during lowest dry and highest wet weather conditions. However, the wetted channel area would be reduced by 8.59 ft in width (from 67.79 to 59.20 ft). This occurs because some of the steep channel banks would no longer be wetted. However, these lost areas provided little habitat value. The reduced discharge would not cause any population of special-status species to drop below self-sustaining levels. Consequently, impacts to candidate, sensitive, or special status species would be less than significant.

Lower Los Angeles River

Less Than Significant. The results of minimum flow condition hydraulic modeling under two scenarios: current/existing conditions and minus the Japanese Garden discharge, are shown in Table 5.1-2. The effects of the proposed Project would result in a reduction of maximum water depth of less than one inch, a change in maximum flow velocity of 5% or less, and little change in wetted area of the channel bottom (less than one foot or less). These minor changes in flow depth and flow velocity would not noticeably change habitat conditions for the algal and benthic invertebrate communities present on the concrete bottom of the channel which may provide foraging habitat within the Lower Los Angeles River area for candidate, sensitive, or special status species and would not directly impact any of these species.

According to flow recommendations developed to support aquatic life and protect beneficial uses in the Los Angeles River, the flows required to support *Cladophora* spp. (species indicative of the health of algal and benthic invertebrate communities) would be 266 to 12,477 cfs to provide a medium probability of supporting suitable habitat and 486-2,151 cfs to provide a high probability of supporting suitable habitat under summer flow conditions in the Lower Los Angeles River (Stein et al., 2021). Flows under the lowest dry weather condition with the proposed Project are predicted to be 71.5 cfs, and under the average dry weather condition are predicted to be 118.6 cfs, both under the threshold to

[4] Note that the reduction in wetted channel area would occur on the edge of steep channels.

provide a medium or high probability of supporting suitable habitat; however, it should be noted that the existing flows of 78.2 cfs under the lowest dry weather condition and 125.3 cfs under the average dry weather condition are also under both thresholds. Consequently, impacts to candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the CDFW or USFWS would be less than significant.

Los Angeles River Estuary

Less Than Significant. Eliminating the discharge of 6.7 cfs from the DCTWRP would have a negligible effect on the estuary. The volume of seawater entering and leaving the estuary during daily tidal cycles is much greater than the volume of freshwater flow entering the estuary from the Los Angeles River. Therefore, the minor decrease in freshwater flows produced by the proposed Project would have minor impacts on habitat conditions and biological communities present within the estuary. Consequently, the impact on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the CDFW or USFWS would be less than significant.

BIO (b). Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations by the CDFW and USFWS?

Upper Los Angeles River

Less Than Significant. This stretch of the Los Angeles River directly below the DCTWRP discharge point is a concrete-lined channel with limited vegetative cover that provides little to no riparian habitat and has no sensitive natural community present. In all three of the scenarios analyzed by the Hydraulic model (high flow, low flow, and average flows), the model predicts that the wetted channel width would be unchanged, remaining at 44.9 ft. Consequently, impacts would be less than significant.

Glendale Narrows

Less Than Significant. This stretch of the Los Angeles River consists of both concrete-lined and soft-bottomed waterway. Some herbaceous and woody species occur in the unlined reaches, including on islands. Emergent marsh species include cattail, bulrush, and invasive giant reed. Flow reductions from the proposed Project could result in reductions in water depth and velocity or changes in wetted channel that could affect riparian vegetation. The effects of the proposed Project were assessed at four locations within the Glendale Narrows (Reporting Nodes LA14, Glendale, LA11, and Elysian Valley). The proposed Project would result in decreases of maximum water depth of one foot or less at all four locations during lowest dry weather, average dry weather, and highest wet weather conditions. The proposed Project would result in reductions in maximum flow velocity of zero to 0.05 ft/s at three of the locations (Glendale, LA11, and Elysian Valley) and changes in maximum flow velocity ranging from a decrease of 0.01 ft/s to an increase of 0.33 ft/s at one location (LA14) during lowest dry weather, average dry weather, and highest wet weather conditions. These minor changes in water depth and flow velocity would not noticeably change habitat conditions or adversely affect biological communities within the Glendale Narrows area. Consequently, impacts to riparian habitat or other sensitive natural communities in the Glendale Narrows reaches would be less than significant.

Riparian vegetation would not lose access to perennial flow due to the relative depths of the root systems and the continuing proximity to water sources and would not be reduced in acreage. In addition, the water levels in the channel change substantially throughout the day and night as discharge

volumes vary with water use in the watershed. The existing riparian habitat is adapted to this flow variability.

The recommended flows required to support adult willow survival (species indicative of the health of the riparian community) and thus support aquatic life and protect beneficial uses in the Los Angeles River are shown in Table 4.6-2. The range of necessary flow values needed to provide a medium probability of supporting suitable habitat varies among locations within the Glendale Narrows (Stein et al. 2021b). Flows under the average dry weather condition with the proposed Project are predicted to be 49.7 cfs and under the lowest dry weather condition to be 28.5 cfs. These predicted flows are above the thresholds that indicate support of suitable habitat for both survival and growth of willows throughout the Glendale Narrows stretch of the Los Angeles River.

Cattails (*Typha* spp.) represent another indicator of the health of the riparian community. According to flow recommendations developed to support aquatic life and protect beneficial uses in the Los Angeles River, the flows required to support adult cattail survival differ widely among locations as was the case for willow survival. These values are shown in Table 4.6-3. Flows under the average dry weather condition with the proposed Project are predicted to be 49.7 cfs and under the lowest dry weather condition to be 28.5 cfs. These predicted flows are above the thresholds that indicate support of suitable habitat for both survival and growth of cattails throughout the Glendale Narrows stretch of the Los Angeles River.

Because flows under the proposed Project exceed the minimum threshold requirements for both willow and cattail survival under medium probability conditions, impacts to riparian habitat or other sensitive communities in the Glendale Narrows area would be expected to be less than significant.

Table 4.6-2. Summer Flow Conditions Required to Provide Suitable Habitat for Survival and Growth of Willows in the Glendale Narrows Stretch of the Los Angeles River

Reporting Node Location	Medium Probability for Sustainability		High Probability for Sustainability	
	Adult Survival	Growth	Adult Survival	Growth
LA14	8-20,589 cfs	8-841 cfs	Not available	8-655
Glendale	23-40,590 cfs	23-595 cfs	Not available	23-256
LA11	25-40,888 cfs	25-844 cfs	Not available	25-666
Elysian Valley	26-41,750 cfs	26-91 cfs	Not available	26-42

Source: Stein et al. 2021b

Table 4.6-3. Summer Flow Conditions Required to Provide Suitable Habitat for Survival and Growth of Cattails (Typha spp.) in the Glendale Narrows Stretch of the Los Angeles River

Reporting Node Location	Medium Probability for Sustainability		High Probability for Sustainability	
	Adult Survival	Growth	Adult Survival	Growth
LA14	84-1,968 cfs	23-197 cfs	294-1,419 cfs	Not available
Glendale	77-568 cfs	23-166 cfs	270-1,238 cfs	Not available
LA11	24-65 cfs	24-48 cfs	93-824 cfs	Not available
Elysian Valley	26-586 cfs	26-55 cfs	104-1,000 cfs	Not available

Source: Stein et al. 2021b

Lower Los Angeles River

No Impact. This stretch of the Los Angeles River consists of concrete-bottom channel and there is no riparian habitat present within this stretch of the river. Consequently, there would be no impacts to riparian habitat and other sensitive communities.

Los Angeles River Estuary

No Impact. This stretch of the Los Angeles River consists of soft-bottom channel with rock and silt substrates and boulder/rip-rap reinforced banks. This stretch of the river is tidally influenced and riparian vegetation is present, including dense stands of cattails and tules and some scattered willow trees. A depositional island is present downstream from Willow Street that supports a mixed stand of mature willows, cattails, and tules. Eliminating the discharge of 6.7 cfs from the DCTWRP would have a negligible effect on the estuary. The volume of seawater entering and leaving the estuary during daily tidal cycles is much greater than the volume of freshwater flow entering the estuary from the Los Angeles River. The minor decrease in freshwater flows produced by the proposed Project would have no impact on riparian habitat or other sensitive natural communities present within the estuary.

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

No Impact. Although the Los Angeles River is considered a Traditional Navigable Water as defined by Section 404 of the CWA, no mapped wetlands are present in any reaches within the proposed Project area and no discharge or placement of fill material within jurisdictional waters would occur as part of the proposed Project. No hydrological interruptions or diversions are proposed for this proposed Project. The proposed Project would not require a Section 404 CWA Permit, nor would it require a Streambed Alteration Agreement from CDFW. The proposed Project would have no impact on federally protected wetlands.

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

Upper Los Angeles River – Sepulveda Dam to Riverside Drive

Less Than Significant. There are no native resident or migratory fish species that live within the Upper Los Angeles River area, nor are there any native wildlife sites present within this stretch of the river. The river is, however, an established wildlife migratory corridor. Flow velocity and water depth alterations from the proposed Project were described previously under BIO(a). The effects of the proposed Project would result in a reduction of maximum water depth of less than half an inch, a decrease in maximum velocity of less than 5%, and no change in wetted area of the channel bottom. These minor changes in water depth and flow velocity would not noticeably change habitat conditions or adversely affect biological communities within the Upper Los Angeles River stretch. Consequently, impacts due to the proposed Project on the movement of native resident or migratory fish, wildlife species, or migratory wildlife corridors, or native wildlife nursery areas would be less than significant.

Glendale Narrows

Less Than Significant. The river is an established wildlife migratory corridor. Flow velocity and water depth alterations from the proposed Project were described previously under BIO(a). The proposed Project would result in reductions in maximum flow velocity of zero to 0.05 ft/s at three of the locations (Glendale, LA11, and Elysian Valley) and changes in maximum flow velocity ranging from a decrease of 0.01 ft/s to an increase of 0.33 ft/s at one location (LA14) during lowest dry weather, average dry weather, and highest wet weather conditions. These minor changes in water depth and flow velocity would not noticeably change habitat conditions or adversely affect biological communities within the Glendale Narrows area. Movement and migration of resident fish species and native wildlife present within this stretch of the river would be unaffected. Consequently, impacts due to the proposed Project on the movement of native resident or migratory fish, wildlife species, or migratory wildlife corridors, or native wildlife nursery areas in the Glendale Narrows area would be less than significant.

Lower Los Angeles River

Less Than Significant. The river is an established wildlife migratory corridor; however, there are no native resident or migratory fish species that live within the lower Los Angeles River area, nor are there any native wildlife sites present within this stretch of the river. Flow velocity and water depth alterations from the proposed Project were described previously under BIO(a). Impacts on the movement native resident or migratory fish, wildlife species, or migratory wildlife corridors, or native wildlife nursery areas in the lower Los Angeles River area would be less than significant.

Los Angeles River Estuary

Less Than Significant. Eliminating the discharge of 6.7 cfs from the DCTWRP would have a negligible effect on the estuary and movement of fish and wildlife within it. The volume of seawater entering and leaving the estuary during daily tidal cycles is much greater than the volume of freshwater flow entering the estuary from the Los Angeles River. Consequently, the impact on movement of any native resident or migratory fish or wildlife species, on native resident or migratory wildlife corridors, or on native wildlife nursery sites would be less than significant.

BIO (e). Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

No Impact. The proposed Project would not directly impact biological resources protected by local policies or ordinances because no such resources occur in the biological study area. In addition, the increased use of recycled water in lieu of potable water for non-potable applications is not expected to have any measurable effect on the number or health of trees or other vegetation in the area, and thus no impact is expected in this regard.

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

No Impact. There are no approved local, regional, or state habitat conservation plans protecting biological resources within the proposed Project area. Thus, no impacts would occur in this regard.

4.7 Cultural Resources (CUL)

This section discusses the potential impacts to cultural resources that could result from implementation of the proposed Project or alternatives. Cultural resources of concern include, but are not limited to, prehistoric and historic artifacts and/or historic structures, and places used for traditional Native American observances or those of special cultural significance. These materials can be found at many locations throughout California's landscape and, along with prehistoric and historic human remains and associated grave-goods, are protected under various regulatory frameworks including CEQA.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

4.7.1 Environmental Setting

Archival research and field surveys of the proposed Project area were conducted in a Phase I Archaeological Assessment that was prepared for the 2016 Los Angeles Groundwater Replenishment Project EIR (LADWP 2016). The proposed Project area defined in the 2016 EIR directly overlaps with the proposed Project area defined in this section. The research focused on the identification of previously recorded cultural and tribal resources within the proposed Project area as well as within a 0.5-mile radius of the proposed Project area (study area). The archival research included review of previously recorded archaeological site records and reports, historic site and property inventories, and historic maps. Inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California State Historic Resources Inventory (HRI), California Historical Landmarks and Points of Interest were also reviewed to identify cultural and tribal resources within both the proposed Project and study areas. The records search revealed that a total of 92 cultural resource investigations were previously conducted within a 0.5-mile radius of the proposed Project area. The records search also indicated that a total of nine cultural resources were previously recorded within a 0.5-mile radius of the proposed Project area. These resources include: three single-family residences; one pair of transmission towers; one concrete bridge; one urban roadway; a former Nike Missile base; one military support building; and the Sepulveda Flood Control Dam. Of these nine resources, none are within proposed Project boundaries.

A search of the mapped Los Angeles Historic-Cultural Monuments and California Historic Landmarks did not identify any resources within a 0.5-mile radius of the DCTWRP. The Directory of Properties in the

Historic Property Data File was consulted to identify historic properties within or facing the proposed Project footprint. Two properties were identified as facing the proposed Project footprint.

A cultural resources field survey of the proposed Project area was conducted on November 25, 2013, and December 10, 2013, for the 2016 Groundwater Replenishment EIR (LADWP 2016). The field survey included an archaeological survey and a historic architectural resources survey to identify cultural resources within the proposed Project footprint. The archaeological survey consisted of a windshield survey along paved road segments of the proposed Project area and focused on the identification of any surface evidence of archaeological materials. No archaeological resources were observed. The entire area within the DCTWRP boundaries is graded and built upon, paved, or landscaped. No cultural resources have been identified at the DCTWRP site (LADWP 2016).

4.7.2 Regulatory Setting

4.7.2.1 National Historic Preservation Act

Section 106 of the National Historic Preservation Act requires that every federal agency "take into account" how each of its undertakings could affect historic properties. Historic properties are districts, sites, buildings, structures, traditional cultural properties, and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the NRHP (NPS 2012).

4.7.2.2 California Register of Historical Resources: California Environmental Quality Act and California Public Resources Code

Cultural resources in California are protected by many federal, state, and local regulations, statutes, and ordinances. The California Register of Historical Resources: CEQA and California Public Resources Code provide the major statewide regulatory framework.

The determination of significance of a cultural resource is guided by specific legal context outlined in CEQA Guideline Sections 15064.5(b). A cultural resource may be eligible for listing in the CRHR if it:

- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- is associated with the lives of persons important in our past;
- embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of an important creative individual or possesses high artistic values; or
- has yielded, or may be likely to yield, information important in prehistory or history.

A cultural resource determined to meet one or more of the above criteria (Criteria 1 to 4) is considered a historical resource under CEQA. Public Resources Code Sections 5097.5 and 30244 include additional state-level requirements for the assessment and management of paleontological resources. These statutes require reasonable mitigation of adverse impacts to paleontological resources resulting from development on state lands, define the removal of paleontological "sites" or "features" from state lands as a misdemeanor, and prohibit the removal of any paleontological "site" or "feature" from state land without permission of the applicable jurisdictional agency. Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur due to development on public lands. Treatment of

paleontological resources under CEQA is similar to treatment of cultural resources, requiring evaluation of resources in the proposed Project area; assessment of potential impacts on significant or unique resources; and development of mitigation measures for potentially significant impacts, which may include monitoring, combined with data recovery excavation and/or avoidance (LADWP 2016).

4.7.2.3 City of Los Angeles General Plan Conservation Element

The goals and policies of the City of Los Angeles General Plan Conservation Element and the Encino-Tarzana Community Plan related to historic, cultural, and paleontological resources are described below.

The proposed Project is subject to the requirements of the City's General Plan and the Encino-Tarzana Community Plan. The proposed Project site is located within the Encino-Tarzana Community Plan area in the City of Los Angeles. Table 4.7-1 lists the objectives and policies within these plans that are applicable to the proposed Project.

Table 4.7-1. Applicable City of Los Angeles General Plan Objectives and Policies

Element	Objective	Policy	Applicability
Conservation Element	Protect the City's archaeological and paleontological resources for historical, cultural research and/or educational purposes.	Continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition, or property modification activities.	A survey was conducted at the proposed Project site and determined that no archaeological or paleontological resources are present. If unidentified resources are observed during construction, the City would follow all required protection measures.
Conservation Element	The discovery of human remains requires evaluation by the county coroner of the nature of the remains and cause of death. If the remains are determined to be of Native American origin, the Native American Heritage Commission is asked to determine the descendants who are to be notified or, if unidentifiable, to establish procedures for burial.	Continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition, or property modification activities.	If human remains are discovered during construction activity, the City would follow these guidelines. However, since the proposed Project area has been previously disturbed, graded, and filled the likelihood of discovering human remains is low.

4.7.3 Environmental Impacts

CUL (a). Cause a substantial adverse change in significance of a historical resource as defined in State CEQA §15064.5?

No Impact. A previous search of the mapped Los Angeles Historic-Cultural Monuments and California Historic Landmarks did not identify any resources within a 0.5-mile radius of the proposed Project area. Therefore, the Project would not have any impacts to any historical resources.

CUL (b). Cause a substantial adverse change in significance of an archaeological resource pursuant to State CEQA §15064.5?

Less than Significant. No archaeological resources are present at the proposed Project site and the proposed Project area is considered to have low paleontological sensitivity. Therefore, the potential for the proposed Project to impact archaeological resources is less than significant.

CUL (c). Disturb any human remains, including those interred outside of formal cemeteries?

No Impact. The previously conducted archives search did not indicate any evidence of the presence of human remains, including those interred outside formal cemeteries. Furthermore, ground disturbance activities will be limited to excavating existing surface materials and stockpiling roughly 200 cubic yards of native material to be used for backfilling trench during pipeline installation. Given that the proposed Project may result in minimal disturbance, it is reasonable to assume that human remains would not be normally anticipated. No impact would occur in this regard.

4.8 Energy (ENG)

This section evaluates the environmental effects related to energy use and conservation associated with implementation of proposed Project. The potential for impacts to energy conservation have been evaluated in accordance with Appendix F of the CEQA Guidelines.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

4.8.1 Environmental Setting

Energy capacity, or electrical power, is generally measured in watts while energy use is measured in watt-hours. For example, if a light bulb has a capacity rating of 100 watts, the energy required to keep the bulb on for 1 hour would be 100 watt-hours. If ten 100-watt bulbs were on for 1 hour, the energy required would be 1,000 watt-hours or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts, which is one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours, which is one billion watt-hours.

LADWP provides electric power to the DCTWRP. LADWP has net dependable generation capacity greater than 7,639 MW and during the 2018 fiscal year ending June 30, the most recent period for which data is available, LADWP delivered a total of approximately 22,8 million MWh of electricity to its customers (LADWP 2019).

As reported in the 2020 Urban Water Management Plan (LADWP 2020), the average energy intensity associated with all recycled water treatment plants in the LADWP service area from 2016 to 2020 is approximately 2,010 kWh/AF.

4.8.2 Regulatory Setting

4.8.2.1 CARB Heavy-Duty On-Road and Off-Road Vehicle Regulations

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter (DPM) emissions (Title13 California Code of Regulations Section2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to

reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

In addition to limiting exhaust from idling trucks, CARB also promulgated emissions standards for off-road diesel construction equipment greater than 25 horsepower (hp) such as loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007, encourages the retirement, replacement, or repower of older engines with newer emissions-controlled models (13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation has shown an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines.

4.8.2.2 City of Los Angeles Sustainable City pLAn

The Sustainable City pLAn is a comprehensive and actionable directive from the Mayor to improve the environmental, economic, and equitable conditions in the City. The pLAn is a tool that the Mayor is using to manage the City and establish visions, goals, and metrics for City Departments. The Sustainable City pLAn establishes visions for City Departments for the following categories: (1) Environment (energy efficiency, water conservation, and waste reduction); (2) Economy (housing needs, transportation system investments, green jobs investments, and natural disaster preparedness); and (3) Equity (environmental justice, revitalized urban areas, and healthy neighborhoods). LASAN and LADWP would comply with policies laid out in this plan during construction activities. Since the proposed Project does not include development of any new buildings and would require no additional energy following completion of construction activities, no other elements of the plan are applicable to the proposed Project.

4.8.3 Environmental Impacts

ENG (a). Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant. Construction activities associated with the proposed Project are estimated to take 18 months to complete. Note that construction would not be continuous throughout this entire duration and is estimated to be completed in a total of six days. Construction of the proposed Project would require the use of fuels (primarily gasoline and diesel) for the operation of construction equipment and vehicles to perform a variety of activities, including excavation, installation of proposed Project components, and vehicle travel (including on-site and commuter trips). Table 4.8-1 provides an estimate of construction fuel consumption for the proposed Project based on information provided by the CalEEMod air quality computer model.

Table 4.8-1. Construction Fuel Consumption

Phase Name	Equipment Type	Horsepower	Duration[1] (total hours)	Number of Equipment Units	Load Factor	Fuel Consumption Rate[2] (gallons per hour)	Total Fuel Consumption[3,4] (gallons)
Phase 1 – Site Preparation and Demolition (1 Day)	Excavator	158	8	1	0.38	2.40	19.21
	Loader	203	8	1	0.36	2.92	23.39
	Concrete Saw	81	8	1	0.73	2.37	18.92
	Water Truck	402	8	1	0.38	6.11	48.88
	Dump Truck	402	8	1	0.38	6.11	48.88
	Pickup Truck	350	8	2	0.38	5.32	42.56
Phase 2 – Trenching (1 Day)	Excavator	158	8	1	0.38	2.40	19.21
	Loader	203	8	1	0.36	2.92	23.39
	Water Truck	402	8	1	0.73	11.74	93.91
	Dump Truck	402	8	1	0.38	6.11	48.88
	Pickup Truck	350	8	2	0.38	5.32	42.56
Phase 3 – Construction/Pipe Installation and Backfilling (1 Day)	Excavator	158	8	1	0.38	2.40	19.21
	Crane	231	8	1	0.29	2.68	21.44
	Loader	203	8	1	0.36	2.92	23.39
	Water Truck	402	8	1	0.38	6.11	48.88
	Dump Truck	402	8	1	0.38	6.11	48.88
	Pickup Truck	350	8	2	0.38	5.32	42.56
Phase 4 – Site Restoration (Grading, Paving, Landscaping) (2 Days)	Excavator	158	16	1	0.38	2.40	38.43
	Loader	203	16	1	0.36	2.92	46.77
	Water Truck	402	16	1	0.38	6.11	97.77
	Dump Truck	402	16	1	0.38	6.11	97.77
	Compactor	8	16	1	0.43	0.14	2.20
	Concrete Mixer Truck	402	16	1	0.38	6.11	97.77
	Paver	130	16	1	0.42	2.18	34.94
	Roller	80	16	1	0.38	1.22	19.46
	Pickup Truck	350	16	2	0.38	5.32	85.12
						TOTAL	***1,154***

Notes:

1. Total hours of duration derived from hours per day x phase duration (days).
2. Derived using the following equation:

Fuel Consumption Rate = Horsepower x Load Factor x Fuel Consumption Factor.

Where: Fuel Consumption Factor for diesel engines is 0.04 gallons per horsepower per hour (gal/hp/hr).

3. Total Fuel Consumption calculated using the following equation: *Total Fuel Consumption = Duration in Hours x Fuel Consumption Rate.*

Source: Refer to Appendix A, CalEEMod 2016.3.2 Emissions Data, for CalEEMod assumptions used in this analysis.

Project construction would occur over four phases, with Phase 4 utilizing the most construction equipment. As shown in Table 4.8-1, the construction of the proposed Project would result in total consumption of approximately 1,154 gallons of fuel. Compliance with the CARB anti-idling and emissions regulations would result in less fuel combustion and energy consumption and thus minimize the proposed Project's construction-related energy use. Therefore, construction of the proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of energy.

Following construction, the project would not require any additional energy resources to operate beyond the power already used for the DCTWRP. Therefore, impacts due to operation of the proposed Project would be less than significant.

ENG (b). Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No impact. No development or changes in current DCTWRP facilities or operations are proposed by the proposed Project, and thus its implementation would not have the potential to conflict with any applicable plans, policies, or regulations related to renewable energy or energy efficiency plans. No impact would occur in this regard.

4.9 Geology and Soils (GEO)

This section examines the regional and local geologic and soil characteristics of the proposed Project site and surrounding area and potential impacts related to geology and soils. The analysis in this section is based on information from the California Geological Survey and the City of Los Angeles.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

4.9.1 Environmental Setting

4.9.1.1 Geology & Topography

The DCTWRP is located on the San Fernando and Van Nuys USGS 7.5-minute quadrangle maps (CDOC 1997). The DCTWRP elevation is approximately 710 feet above mean sea level. The site is within the San Fernando Valley, which is bounded on the north and northwest by the Santa Susana Mountains, on the

north and northeast by the San Gabriel Mountains, on the east by the San Rafael Hills, on the south by the Santa Monica Mountains and Chalk Hills, and on the west by the Simi Hills. The DCTWRP is underlain by the Pacoima/Tujunga alluvial fan. Younger alluvium is found on the Pacoima/Tujunga fan and consists of soils composed of sand, silt, and some gravel, associated with large river systems that have their sources in the San Gabriel Mountains.

4.9.1.2 Faulting & Seismicity

The DCTWRP is located within a seismically active region, as is the majority of southern California. Following the 1971 San Fernando Earthquake, the State of California passed the Alquist-Priolo Fault Zoning Act in 1972 to address surface rupture hazards to human-occupied structures. The main purpose of the Act is to prevent the construction of human-occupied structures along the surface trace of active faults. Under the Act, the State Geologist is required to delineate active faults or "regulatory zones," known as Earthquake Fault Zones. The Earthquake Fault Zones are identified on maps distributed to affected cities, counties, and state agencies for their use in planning and regulating development projects located within the zones. The proposed Project site is not located within an Alquist-Priolo Earthquake Fault Zone. There are no active faults or fault systems known to traverse the proposed Project site; however, the proposed Project site is situated south of the San Gabriel, San Fernando, Whitney Canyon, and Mission Hills faults. The two dominant structural features in the area are the northwest-striking San Gabriel Fault, located approximately 10 miles north of the DCTWRP, and the group of north-dipping thrust faults that make up the San Fernando Fault Zone, located approximately 4 miles north of the DCTWRP and spanning the length of the valley. In addition, the Northridge Hills, Mission Wells, Sylmar, Tujunga, Buck Canyon, Lone Tree, and Verdugo faults are located near the site (LADWP 2016).

The only hazards addressed by the Alquist-Priolo Fault Zoning Act are those related to surface fault rupture, not other earthquake hazards. As such, the state passed the Seismic Hazards Mapping Act in 1990 to address non-surface rupture seismic hazards, which include liquefaction, landslides, and strong seismic ground shaking. Under the Seismic Hazards Mapping Act, the State Geologist is required to identify and map the locations of these secondary seismic hazards (CDOC 2020). Seismic risk zones have been identified based on the known distribution of historic earthquakes, evidence of past earthquakes, proximity to earthquake areas and active faults, and frequency of earthquakes in a given area. These zones are generally classified based on peak acceleration from maximum credible earthquakes or the Uniform Building Code Seismic Risk Map of the United States. Due to the number of active faults in Los Angeles County and southern California, the region is in the highest risk zone defined by Uniform Building Code standards (Zone IV).

4.9.1.3 Soils & Geohazards

At depth, the DCTWRP is underlain by the Miocene Topanga Group and Miocene Modelo Formation. Quaternary deposits cover the floor and margins of the San Fernando Valley and extend southward up into the canyons in the Santa Monica Mountains. They generally consist of older and younger alluvial fan and basin deposits of upper Pleistocene and Holocene age. Sedimentation in the proposed Project area consists of younger alluvium and is primarily sand, silt, and some gravel, the compositions of which reflect the crystalline rocks of the source area.

According to the California Geologic Survey's Seismic Hazard Zone Maps for the proposed Project site and vicinity (Van Nuys and San Fernando quadrangles), DCTWRP occurs within an area identified as having the potential for liquefaction. As the DCTWRP occurs within an area identified as having the potential for liquefaction, it is also at risk of seismically induced settlement and subsidence. The on-site geologic materials in the proposed Project area consist of alluvium, alluvium basin deposits, and artificial fill. These materials are not high clay-bearing and are not considered expansive soil.

DCTWRP is in areas of relatively flat terrain. There are no mapped landslides on site. Additionally, according to the California Geologic Survey's Seismic Hazard Zone Maps for the proposed Project site and vicinity (Van Nuys and San Fernando quadrangles), it is not located in an area identified as having the potential for earthquake-induced landslides (LADWP 2016).

4.9.1.4 Paleontological Resources

Literature searches were conducted in October 2014 for the Los Angeles Groundwater Replenishment EIR (LADWP 2016) to determine whether any previously recorded fossil localities occur within the proposed Project area, as well as to research the paleontological potential, stratigraphy, and general geology of the formations in the proposed Project area, based on research that has been completed elsewhere in Los Angeles County. The proposed Project area is considered to have low paleontological sensitivity. There are no vertebrate fossil localities that exist within the proposed Project area boundaries in the Natural History Museum of Los Angeles County records (LADWP 2016).

4.9.2 Regulatory Setting

4.9.2.1 Alquist-Priolo Fault Zoning Act

Following the 1971 San Fernando Earthquake, the State of California passed the Alquist-Priolo Fault Zoning Act in 1972 to address surface rupture hazards to human-occupied structures. The main purpose of the Act is to prevent the construction of human-occupied structures along the surface trace of active faults. Under the Act, the State Geologist is required to delineate active faults or "regulatory zones," known as Earthquake Fault Zones. The Earthquake Fault Zones are identified on maps distributed to affected cities, counties, and state agencies for their use in planning and regulating development projects located within the zones.

4.9.2.2 Seismic Hazards Mapping Act

The only hazards addressed by the Alquist-Priolo Fault Zoning Act are those related to surface fault rupture, not other earthquake hazards. As such, the state passed the Seismic Hazards Mapping Act in 1990 to address non-surface rupture seismic hazards, which include liquefaction, landslides, and strong seismic ground shaking. Under the Seismic Hazards Mapping Act, the State Geologist is required to identify and map the locations of these secondary seismic hazards (CDOC 2020).

4.9.2.3 City of Los Angeles General Plan Safety Element

The Safety Element of the City of Los Angeles General Plan (LA City 1996) includes the following applicable policy related to geology and seismicity:

Table 4.9-1. Applicable City of Los Angeles General Plan Objectives and Policies

Element	Objective	Policy	Applicability
Safety	Implement comprehensive hazard mitigation plans and programs that are integrated with each other and with the City's comprehensive emergency response and recovery plans and programs.	1.1.6 – Assure compliance with applicable state and federal planning and development regulations, e.g., Alquist-Priolo Earthquake Fault Zoning Act, State Mapping Act, and Cobey-Alquist Floodplain Management Act.	Construction activity would comply with all Building Codes which are designed to protect developments in known areas of geologic hazards. The proposed Project does not involve construction of any structures which would put any occupants at risk.

4.9.2.4 City of Los Angeles Building Code

Chapter 9 of the Los Angeles Municipal Code contains the City's building and construction regulations. Chapter 9 adopts the 2019 Edition of the California Building Code and other related technical building codes based on the 2018 Edition of the International Building Code. Both required and voluntary standards are included in Article 1 of Chapter 9 that relate to earthquake hazard reduction (LAMC 2020)

4.9.2.5 Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act of 2002 codifies the generally accepted practice of limited vertebrate fossil collection and limited collection of other rare and scientifically significant fossils by qualified researchers. Researchers must obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions, where they would remain accessible to the public and other researchers (NPS 2020).

4.9.3 Environmental Impacts

GEO (a). Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii. Strong seismic ground shaking?

iii. Seismic-related ground failure, including liquefaction?

iv. Landslides?

Less than Significant. While the DCTWRP is in an area known to be at high risk for earthquakes, the proposed Project does not involve the building of any structures and would therefore not expose any people or structures to potential substantial adverse effects if rupture of a known earthquake fault or strong seismic ground shaking were to occur. While the proposed Project site is located within an

identified liquefaction zone, construction of the proposed valve would not increase potential liquefaction risks. The proposed Project would be designed and constructed in accordance with the latest version of the City of Los Angeles Building Code and other applicable federal, state, and local codes. Soils would be excavated and properly compacted per City requirements prior to use as backfill. Unsuitable soils would be disposed of at an appropriate off-site location and other suitable soils would be imported to the proposed Project site. With adherence to all applicable state and local building standards and codes, impacts related to seismic-related ground failure, including liquefaction, would be less than significant. The proposed Project site and surrounding area are completely developed and are characterized by flat topography. According to the Seismic Hazard Zone Maps containing the proposed Project site, the proposed Project site is not designated as a potential earthquake-induced landslide area. Further, the site is not located within a City-designated Landslide or Hillside Area. Therefore, no impact related to landslides would occur.

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

Less than Significant. As physical development and proposed changes in the current facilities at the existing DCTWRP are minor, the proposed Project would result in minimal site disturbance and grading activity that could expose soils susceptible to erosion. The increased application of recycled water to offset the use of potable water for non-potable purposes would not result in increased erosion since recycled water would be applied in the same location, manner, and intensity as was done previously with potable water. Thus, implementation of the proposed Project would not result in substantial soil erosion or the loss of topsoil. Impacts would be less than significant.

Construction of the proposed Project would result in the exposure and stockpiling of soils for a limited time, allowing for possible erosion, although the temporary nature of these activities would not be expected to result in substantial erosion. During construction, transport of sediments from the proposed Project site by stormwater runoff and winds would be prevented through appropriate Best Management Practices (BMPs). In addition, Rule 403 dust control measures would be implemented, as required by the SCAQMD. In addition, compliance with the statewide construction general permit (SWRCB Order 2012-0006-DWQ) would require the preparation of a SWPPP. The SWPPP would list the measures to be implemented to prevent erosion from all construction related activities associated with the proposed Project, including from spoils piles, excavation, earth moving, etc. Additionally, the City would prepare a Standard Urban Stormwater Mitigation Plan and/or Site-Specific Mitigation Plan as mandated by the City of Los Angeles Department of Public Works. With adherence to all applicable regulations and implementation of appropriate BMPs, construction impacts associated with soil erosion or the loss of topsoil would be less than significant.

GEO (c). Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant. The DCTWRP is not located on soils or geologic units that are identified as unstable. Ground disturbance associated with the construction of the valve would involve minor below ground activities and would not involve the construction of any aboveground structures. As discussed above, the proposed Project would be designed and constructed in accordance with the City of Los Angeles Building Code and other applicable federal, state, and local codes. Soils would be excavated and

properly compacted per City requirements prior to use as backfill. Unsuitable soils would be disposed of at an appropriate off-site location and other suitable soils would be imported to the proposed Project site. With adherence to all applicable state and local requirements, impacts related to lateral spreading, subsidence, liquefaction, or collapse resulting from unstable soils would be less than significant.

GEO (d). Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. Expansive soils are defined as fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. The on-site geologic materials in the proposed Project area consist of alluvium, alluvium basin deposits, and artificial fill. These materials are not high clay-bearing and would not be considered expansive soil. Therefore, no impacts would occur.

GEO (e). Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The proposed Project does not include the use or development of septic tanks or alternative wastewater disposal systems. Thus, no impacts would occur in this regard.

GEO (f). Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant. No paleontological resources or unique geologic features were observed in previously conducted onsite survey or identified in previously conducted archive searches. The DCTWRP is considered to have low paleontological sensitivity. Furthermore, ground disturbance activities will be limited to excavating existing surface materials and stockpiling roughly 200 cubic yards (cy) of native material to be used for backfilling trench during pipeline installation. Therefore, implementation of the proposed Project would likely not result in a substantial adverse change in the significance of a paleontological resources or unique geologic features and impacts would be less than significant.

4.10 Greenhouse Gas Emissions (GHG)

This section describes the proposed Project's impact related to greenhouse gas (GHG) emissions generated during construction and operation, as well as the proposed Project's consistency with applicable GHG emissions and climate change legislation.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

4.10.1 Environmental Setting

Recent significant changes in global climate patterns have been associated with global warming, an average increase in the temperature of the atmosphere near Earth's surface. Global warming has been attributed to the accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities appears to be closely associated with global warming.

The standard state definition of GHG includes six substances: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF_6) (CARB 2014). Tropospheric O_3 (a short-lived, not-well-mixed gas) and black carbon are also important climate pollutants. CO_2 is the most abundant GHG, and collectively CO_2, CH_4, and N_2O amount to 80 percent of GHG effects.

For each GHG, a global warming potential (GWP) has been calculated to reflect how long emissions remain in the atmosphere and how strongly energy is absorbed on a per-kilogram basis relative to CO_2. GWP is a metric that indicates the relative climate forcing of a kilogram of emissions when averaged over the period of interest (both 20-year and 100-year horizons are used for the GWPs shown in Table 4.10-1). To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent of CO_2, denoted as CO_2e. CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect.

Table 4.10-1. Global Warming Potential for Selected Greenhouse Gases

Pollutant	Lifetime (Years)	Global Warming Potential (20-Year)	Global Warming Potential (100-Year)
Carbon Dioxide	100	1	1
Nitrous Oxide	121	264	265
Nitrogen Triflouride	500	12,800	16,100
Sulfur Hexafluoride	3,200	17,500	23,500
Perfluorocarbons	3,000-50,000	5,000-8,000	7,000-11,000
Black Carbon	days to weeks	270-6,200	100-1,700
Methane	12	84	28
Hydrofluorocarbons	Uncertain	100-11,000	100-12,000

Source: CARB 2014

The primary effect of rising global concentrations of atmospheric GHG is a rise in the average global temperature of approximately 0.2 degrees Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using emission rates shows that further warming is likely to occur given the expected rise in global atmospheric GHG concentrations from innumerable sources of GHG emissions worldwide, which would induce further changes in the global climate system during the current century. Adverse impacts from global climate change worldwide and in California include:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in atmospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (USEPA 2009);
- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets (IPCC 2007);
- Changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (IPCC 2007);
- Declining Sierra Mountains snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years (CalEPA 2006);
- Increasing the number of days conducive to O_3 formation (e.g., clear days with intense sun light) by 25 to 85 percent (depending on the future temperature scenario) in high O_3 areas located in the Southern California area and the San Joaquin Valley by the end of the 21st Century (CalEPA 2006); and
- Increasing the potential for erosion of California's coastlines and seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level (CalEPA 2006).

Scientific understanding of the fundamental processes responsible for global climate change has improved over the past decade. However, there remain significant scientific uncertainties.

For example, uncertainties exist in predictions of local effects of climate change, occurrence of extreme weather events, and effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the climate system, the uncertainty surrounding the implications of climate change may never be eliminated. Because of these uncertainties, there continues to be significant debate as to the extent to which increased concentrations of GHGs have caused or would cause climate change, and with respect to the appropriate actions to limit and/or respond to climate change. In addition, it may not be possible to link specific development projects to future specific climate change impacts, though estimating project-specific impacts is possible.

4.10.2 Regulatory Setting

4.10.2.1 Executive Order S-3-05

On June 1, 2005, Executive Order S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. It calls for the Secretary of CalEPA to be responsible for coordination of State agencies and progress reporting.

4.10.2.2 Executive Order B-30-15

In April 2015, Governor Edmund Brown issued an Executive Order establishing a statewide GHG reduction goal of 40 percent below 1990 levels by 2030. The emission reduction target acts as an interim goal between the AB 32 goal (i.e., achieve 1990 emission levels by 2020) and Governor Brown's Executive Order S-03-05 goal of reducing statewide emissions 80 percent below 1990 levels by 2050. In addition, the Executive Order aligns California's 2030 GHG reduction goal with the European Union's reduction target (i.e., 40 percent below 1990 levels by 2030) that was adopted in October 2014.

4.10.2.3 Assembly Bill 32 (AB 32)

In September 2006, the California Global Warming Solutions Act of 2006, also known as AB 32, was signed into law. AB 32 focuses on reducing GHG emissions in California and requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to Statewide levels in 1990 by 2020. CARB initially determined that the total Statewide aggregated GHG 1990 emissions level and 2020 emissions limit was 427 million metric tons of CO_2e. The 2020 target reduction was estimated to be 174 million metric tons of CO_2e.

To achieve the goal, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved.

4.10.2.4 Senate Bill 32 (SB 32)

Senate Bill (SB) 32, signed September 8, 2016, updates AB 32 to include an emissions reduction goal for the year 2030. Specifically, SB 32 requires the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. The new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel

fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

4.10.2.5 Senate Bill 375 (SB 375)

Acknowledging the relationship between land use planning and transportation sector GHG emissions, Senate Bill (SB) 375 was passed by the State Assembly on August 25, 2008, and signed by the Governor on September 30, 2008. This legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32. Reductions in GHG emissions would be achieved by, for example, locating employment opportunities close to transit.

Under SB 375, each Metropolitan Planning Organization (MPO) would be required to adopt a Sustainable Community Strategy (SCS) to encourage compact development that reduce passenger VMT and trips so that the region will meet a target, created by CARB, for reducing GHG emissions. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target could be achieved through alternative development patterns, infrastructure, and/or transportation measure

4.10.2.6 Southern California Association of Governments

To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS) on September 3 ,2020. The 2020–2045 RTP/SCS reaffirms the land use policies that were incorporated into the 2016–2040 RTP/SCS. The 2020-2045 RTP/SCS describes how the region can attain the GHG emission-reduction targets set by CARB by achieving a 19 percent reduction by 2035 compared to the 2005 level on a per capita basis. Compliance with and implementation of 2020 RTP/SCS policies and strategies would have co-benefits of reducing per capita criteria air pollutant emissions associated with reduced per capita vehicle miles traveled (VMT).

4.10.2.7 Climate Change Scoping Plan

In 2008, CARB approved the original *Climate Change Scoping Plan* as required by AB 32. Subsequently, CARB approved updates to the *Climate Change Scoping Plan* in 2014 (First Update) and 2017 (2017 Update), with the *2017 Update* considering SB 32 (adopted in 2016) in addition to AB 32. The original *Climate Change Scoping Plan* proposed a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health. The original *Climate Change Scoping Plan* identified a range of GHG reduction actions that included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

The original *Climate Change Scoping Plan* called for a "coordinated set of solutions" to address all major categories of GHG emissions. Transportation emissions were addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard (LCFS), and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes,

required to use energy more efficiently. Utility energy providers were required change to include more renewable energy sources through implementation of the Renewables Portfolio Standard (RPS). Additionally, the original Climate Change Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicated that substantial savings of electricity and natural gas would be accomplished through "improving energy efficiency by 25 percent."

On December 2017, CARB adopted California's *2017 Climate Change Scoping Plan Update: The Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan Update)*. The *2017 Scoping Plan Update* builds upon the framework established by the original *Climate Change Scoping Plan* and the First Update while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health. The *2017 Scoping Plan Update* includes policies to require direct GHG emissions reductions at some of the state's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade program, which constrains and reduces emissions at covered sources.

4.10.2.8 California Green Building Standards (CALGreen Code)

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2017. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The 2019 CALGreen code updates were published July 1, 2019, with an effective date of January 1, 2020.

The California Energy Code (California Code of Regulations, Title 24, Section 6) was created as part of the California Building Standards Code (Title 24 of the California Code of Regulations) by the California Building Standards Commission in 1978 to establish statewide building energy efficiency standards to reduce California's energy consumption. These standards include provisions applicable to all buildings, residential and nonresidential, which describe requirements for documentation and certificates that the building meets the standards. Compliance with Title 24 is enforced through the building permit process.

4.10.2.9 City of Los Angeles Green Building Code

On December 15, 2011, the Los Angeles City Council approved Ordinance No. 181,481, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, by adding a new Article 9 to incorporate various provisions of the 2010 CALGreen Code. On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which further amended Chapter IX of the LAMC, by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. Projects filing building permit applications on or after January 1, 2020, must comply with the provisions of the current Los Angeles Green Building Code.

4.10.2.10 City of Los Angeles Green LA Action Plan/Climate LA Plan

The City began addressing the issue of global climate change by publishing Green LA, An Action Plan to Lead the Nation in Fighting Global Warming (LA Green Plan) in 2007. This document outlines the goals and actions the City has established to reduce the generation and emission of GHG emissions from both public and private activities. According to the LA Green Plan, the City is committed to the goal of reducing emissions of CO_2 to 35 percent below 1990 levels by year 2030. To achieve this, the City has been implementing the following:

- Increase the generation of renewable energy;
- Improve energy conservation and efficiency; and
- Change transportation and land use patterns to reduce dependence on automobiles.

To facilitate implementation of the LA Green Plan, the City has a Climate LA Plan that lays out departmental programs to implement the Action Plan's initiatives. The City also adopted the Los Angeles Green Building Code, as discussed below. In addition, LASAN and LADWP will continue to implement programs to emphasize water conservation and will also pursue securing alternative supplies, including recycled water and storm water capture. Furthermore, the City implemented the Recovering Energy, Natural Resources and Economic Benefit from Waste for Los Angeles plan (RENEW LA plan) to meet solid waste reduction goals by expanding recycling to multifamily dwellings, commercial establishments, and restaurants. Under the RENEW LA plan, the City is also developing facilities that will convert solid waste to energy without incineration. These measures would serve to reduce overall emissions from the City.

4.10.2.11 City of Los Angeles Sustainable City pLAn

The Sustainable City pLAn was adopted in 2015, updated in 2019, and includes both short-term and long-term aspirations through the year 2035 in various topic areas, including: water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others. Specific targets include sourcing 70 percent of the City's water locally and reduce LADWP purchases of imported water by 50 percent. The Sustainable City pLAn is updated every four years

4.10.2.12 CEQA Guidelines Amendments

SB 97 required the Governor's Office of Planning and Research to develop CEQA Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions." The CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. Noteworthy revisions to the CEQA Guidelines include the following:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of project features that may increase or decrease GHG emissions as compared to the existing setting;
- Consistency with the CARB Scoping Plan is not a sufficient basis to determine that a project's GHG emissions would not be cumulatively considerable;

- A lead agency may appropriately look to thresholds developed by other public agencies, including the CARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and
- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

4.10.2.13 SCAQMD Interim CEQA GHG Thresholds

SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds in October 2008. The SCAQMD proposed the use of a percent emission reduction target (e.g., 30 percent) to determine significance for commercial/residential projects that emit greater than 3,000 metric tons per year. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 metric tons per year of CO_2e for stationary source/industrial projects where the SCAQMD is the lead agency. However, SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) and has formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds and provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Guidance documents have not yet been published. The proposed Project does not include the construction or operation of any stationary sources; therefore, the interim significance threshold is not applicable to the proposed Project.

4.10.3 Environmental Impacts

4.10.3.1 Significance Thresholds

The City of Los Angeles has not adopted GHG thresholds of significance for CEQA. Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significance for GHG emissions if a project complies with regulatory programs to reduce GHG emissions.

In the absence of any adopted numeric threshold, the significance of the proposed Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b) by considering whether the

Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For the proposed Project, as a recycled water supply project, the most directly applicable adopted regulatory plan to reduce GHG emissions is the Los Angeles Green LA Action Plan/Climate LA Plan and the City of Los Angeles Sustainable City pLAn, which are designed to a to achieve regional GHG reductions to meet the State's long-term climate goals. This analysis also considers consistency with regulations or requirements outlined in the L.A. Green Building Code. The long-term GHG emissions related to water conveyance were already evaluated in the Groundwater Replenishment Project EIR adopted in 2016 (LADWP 2016).

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

Less than significant. The City is proposing the distribution of recycled water for municipal use which would reduce the City's discharge of treated water to the Los Angeles River, while proportionally increasing the delivery of recycled water to various users within the service area. This proposed change would require the construction of a new valve and pipeline. Construction-related GHG emissions were estimated using SCAQMD's CalEEMod 2016.3.2 model (refer to Appendix A) based on assumptions from the City, including the Project's construction schedule detailed in Section 2.4. All construction emissions (e.g., off-road equipment, worker vehicle trips, excavating, and trenching) associated with the proposed Project were evaluated. Based on the results of this modeling, construction emissions would result in 10.6 CO_2e metric tons GHG emissions per year.

SCAQMD guidance recognizes that GHG emission reduction options for construction are extremely limited, and they recommend amortizing construction emissions over a 30-year period and address them as part of operational GHG reduction strategies[5]. In accordance with this guidance, GHG emissions from construction were amortized (i.e., averaged annually) over a 30-year timeframe, with a resulting annual emission of 0.35 metric tons CO_2e per year.

The purpose of the proposed Project is to offset the current use of imported water with recycled water for groundwater replenishment. Since water delivery is one of the most energy-intensive activities in the State, implementing programs that support local water use would result in a reduction in energy required for water conveyance and thereby result in a net reduction in GHG emissions. Specifically, the energy required for recycled water is estimated at 1,150 kWh per acre-foot while imported water from SWP East and SWP West ranges from approximately 4,110 to 4,520 kWh per acre-foot corresponding to water supply GHG emissions of approximately 0.63 metric tons CO_2e per acre-foot for recycled water versus 1.37 to 1.5 metric tons CO_2e for water supplied for SWP East and SWP West (using the 2014 power portfolio GHG intensity factors for each water supply respectively).[6] These estimates correspond with the Sustainable City pLAn which states that "*Purchasing imported water uses 3 to 4 times the energy of local water sources such as groundwater and recycled water*" and represent reduction of up to 46 percent GHG emissions per acre-foot of water supplied by the Project versus imported water

[5] SCAQMD. 2008. *Interim GHG Significance Threshold Staff Proposal (Agenda 31).* December 5, 2008: Available at: https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C39.pdf

[6] University of California, Los Angeles. 2018. *LA Sustainable Water Project: Los Angeles City-Wide Overview.* February 1, 2018. Available at: https://escholarship.org/content/qt4tp3x8g4/qt4tp3x8g4.pdf?t=p61ygd

supplies. Therefore, the reduction in the need for imported water supplies and the associated CO_2e emissions would offset the minor GHG emissions associated with valve and short pipeline installation associated with the Project.

Although GHG emission reduction measures for construction equipment are relatively limited, the construction of the proposed Project would be required to comply with applicable BMPs including requirements of the Los Angeles Green Building Standards Code, and by extension, the California Green Building Standards Code for efficiency and sustainability, including requirements to reduce GHG emissions associated with energy use, water, and waste (see Section 4.10.2). Further, the proposed Project will be constructed in parallel with the overall project at DCTWRP in order to reduce trips associated with mobilization/demobilization which will further reduce GHG emissions associated with construction activities.

Based on the results of the quantitative analysis, construction emissions would result in 0.35 CO_2e metric tons of GHG emissions per year (amortized over 30 years). These emissions would be offset by GHG emission reductions from reduction in energy required by imported water supplies. In addition, construction would be conducted in accordance with applicable BMPs of the Los Angeles Green Building Standards Code and the California Green Building Standards Code for efficiency and sustainability. Therefore, the Project would have a less than significant impact.

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

The purpose of the proposed Project is to offset the current use of imported water with recycled water for groundwater replenishment. Since water delivery is one of the most energy-intensive activities in the State, implementing programs that support local water use would result in a reduction in energy required for water conveyance and thereby result in a net reduction in GHG emissions. Therefore, the State has adopted goals for development of alternative water sources, such as recycled water and stormwater. The SWRCB adopted recycled water goals to increase usage above the 2002 usage levels by at least one million AFY by 2020 and by at least two million AFY by 2030. The proposed Project would provide a sustainable and reliable source of recycled water for groundwater basin replenishment, and, therefore, would be consistent with the goals of the Scoping Plan update.

The proposed Project's design features and compliance with regulatory measures would be consistent with local and statewide goals and policies aimed at reducing emissions of GHG. The LA Green Plan outlines the goals and actions the City has established to reduce the generation of GHG emissions from both public and private activities. Table 4.10-2 includes a discussion of the Project's consistency with applicable GHG-emissions reducing actions from the LA Green Plan. As discussed below, the proposed Project is consistent with the applicable goals and actions of the LA Green Plan.

To facilitate implementation of the LA Green Plan, the City adopted to the Los Angeles Green Building Code. The proposed Project would be required to comply with applicable requirements of the Los Angeles Green Building Standards Code, and by extension, the California Green Building Standards Code for efficiency and sustainability, including requirements to reduce GHG emissions associated with energy use, water, and waste. Therefore, the proposed Project would not conflict with or interfere with the City's ability to implement the City of LA Green Plan which sets a goal of reducing GHG emissions to 35

percent below 1990 levels by 2030. In addition, the Southern California Association of Governments (SCAG) has adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy.

Table 4.10-2 Consistency with Applicable GHG Emissions Goals and Actions of the LA Green Plan

Action	Description	Consistency Analysis
Focus Area: Energy		
Present a comprehensive set of green building policies to guide and support private sector development	The City of Los Angeles initiated an effort to establish green building requirements to provide a variety of environmental benefits including savings in electricity, gas, and water consumption, and a reduction in the quantity of solid waste sent to landfills.	**Consistent.** While this action primarily applies to the City, the proposed Project would be designed and operated to meet applicable requirements of the State Green Building Standards Code and the City's Green Building Code.
Focus Area: Water		
Implement the City's innovative water and wastewater integrated resources plan that will promote increased water conservation and maximize the use of recycled water, including capture and reuse of stormwater.	The Mayor's Office and LADWP developed the Securing LA's Water Supply plan, which includes a set of key short-term and long-term strategies to secure our water future, such as maximizing water recycling.	**Consistent.** The proposed Project proposes to beneficially reuse recycled water to increase recharge in the SFB. Therefore, the Project would be consistent with the goal to maximize use of recycled water.
Focus Area: Land Use		
Make available underutilized city land for parks and open space.	The City has identified green spaces as having tangible environmental benefits. An urban ecosystem approach recognizes and accounts for the intrinsic ability of ecosystems—through biological processes—to mitigate climate change impacts and reduce GHG emissions. For example, soil and vegetation filters air pollution and absorbs CO_2.	**Consistent.** The proposed Project would not alter the form and function of the public Japanese Garden since flows would be intercepted only after they flow into the overflow structures, maintaining the flow-through function of the Japanese Garden Lake.
Focus Area: Land Use		
Reduce or recycle 70 percent of trash by 2015.	Source reduction and recycling programs not only conserve natural resources and landfill space, but also confer climate benefits.	**Consistent.** The City of Los Angeles has adopted a Citywide Construction and Demolition (C&D) Waste Recycling Ordinance that requires all mixed construction and demolition waste generated within City limits be taken to City certified C&D waste processors. The handling of all debris and waste generated during construction would be required to be taken to a certified C&D waste processor. The proposed Project development would comply with all

		other federal, state, and local statues and regulations related to solid waste.

As discussed in Section 4.10.2, the Sustainable City pLAn included both shorth-term and long-term aspirations through year 2035 in various topic areas, including: water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others. The Sustainable City pLAn provides information for their goals of sourcing 70 percent of water locally by 2035. Specific targets related to water supply include recycling 100 percent of all wastewater for beneficial use by 2035. The proposed Project would comply with this target as water from the DCTWRP that currently flows from the Japanese Garden Lake to the discharge downstream of the Sepulveda Dam would instead be rerouted back to DCTWRP for additional treatment, and then be sent either to the PSG or the HSG for beneficial reuse.

Although not directly applicable to the proposed Project, the proposed Project would not conflict with population growth projections of the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, or its goals associated with GHG reductions since the Project would be consistent with the current land use designation for the Project site and would not create housing or otherwise lead to substantial unplanned population growth in the vicinity.

The plan consistency analysis demonstrates that the Project is consistent with plans, policies, regulations and GHG reduction actions/strategies outlined in CARB's Scoping Plan, SCAG's 2020-2045 RTP/SCS, Sustainable City pLAn, LA Green Plan, and adopted Los Angeles Building Code. As the Project would not conflict with applicable plans, policies, and regulations adopted for the purpose of reducing emissions of GHGs, the Project's impacts related to GHG emissions would be less than significant. Further, based on the results of the quantitative analysis as described above, construction emissions would result in 0.35 CO_2e metric tons of GHG emissions per year (amortized over 30 years). As detailed above, local water sources such as recycled water uses 3 to 4 times less energy than purchasing imported water. Accordingly, Project construction emissions would be offset by GHG emission reductions from reduction in energy required by imported water supplies. In addition, construction would be conducted in accordance with applicable BMPs of the Los Angeles Green Building Standards Code and the California Green Building Standards Code for efficiency and sustainability. Because the Project is consistent and does not conflict with the applicable plans, policies, and regulations, the Project's incremental increase in GHG emissions of 0.35 CO_2e metric tons per year (amortized over 30 years) and offset by reductions in imported water would be less than significant.

4.11 Hazards and Hazardous Materials (HAZ)

This section addresses the potential of the proposed Project to expose the public and environment to hazards and hazardous materials during construction and operation. The analysis in this section is based in part on information from regulatory databases.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

4.11.1 Environmental Setting

While the DCTWRP is an active wastewater treatment facility that stores and uses reportable quantities of hazardous materials, no hazardous materials would be associated with the proposed Project. The City has a hazardous materials inventory statement and a consolidated contingency plan, as well as a federal risk management plan and a California Accidental Release Prevention Program for DCTWRP to properly manage and control hazardous materials (LADWP 2016).

To evaluate current conditions regarding hazardous materials, hazardous waste, and known releases of hazardous materials on DCTWRP that may be affected by the proposed Project, a regulatory database search was conducted in 2016 for the LAGWRP EIR (LADWP 2016). The EnviroStor and GeoTracker databases were reviewed for known hazardous materials sites. Both databases are used by the State of California are used to track and record data from land disposal sites and unauthorized releases of

hazardous materials from underground storage tanks. The EnviroStor database also includes those sites listed on the Cortese List and the USEPA National Priorities List. No recognized environmental conditions were found for the proposed Project site.

4.11.2 Regulatory Setting

4.11.2.1 Resource Conservation and Recovery Act of 1976

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC Sections 6901 – 6987), including the Hazardous and Solid Waste Amendments of 1984, protects human health and the environment, and imposes regulations on hazardous waste generators, transporters, and operators of treatment, storage, and disposal facilities. The corresponding regulations in 40 CFR 260–299 provide the general framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste (LADWP 2016). The City is required to comply with these requirements during construction activity for the proposed Project. Following completion of construction activity, the proposed Project would not involve generation, storage, transportation or disposal of any hazardous wastes and the provisions of RCRA would not apply.

4.11.2.2 Hazardous Waste Control Act

The state equivalent of the RCRA is the Hazardous Waste Control Act. It created the State Hazardous Waste Management Program, which is similar to the RCRA program. The Hazardous Waste Control Act establishes requirements for the proper management of hazardous substances and wastes with regard to criteria for (1) identification and classification of hazardous wastes; (2) generation and transportation of hazardous wastes; (3) design and permitting of facilities that recycle, treat, store, and dispose of hazardous wastes; (4) treatment standards; (5) operation of facilities; (6) staff training; (7) closure of facilities; and (8) liability requirements. Similar to RCRA, the City would comply with all provisions of this Act during construction activity and following the completion of construction, the proposed Project would not involve any hazardous waste.

4.11.2.3 California Occupational Safety and Health Program

Under an agreement with Occupational Safety and Health Program, the State of California operates an occupational safety and health program in accordance with Section 18 of the Occupational Safety and Health Act of 1970. Initial approval of the California State Plan was published on May 1, 1973, and certification for completing all developmental steps was received on August 19, 1977. Construction activities associated with the proposed Project would be required to comply with all Occupation Safety and Health program requirements.

4.11.2.4 City of Los Angeles General Plan Safety Element

The Safety Element of the City's General Plan contains the policies related to the production, use, storage, and transport of hazardous materials (Table 4.11-1).

Table 4.11-1. Applicable City of Los Angeles General Plan Objectives and Policies

Element	Objective	Policy	Applicability
Safety	Implement comprehensive hazard mitigation plans and programs that are integrated with each other and with the City's comprehensive emergency response and recovery plans and programs.	1.1.4 - Protect the public and workers from the release of hazardous materials and protect City water supplies and resources from contamination resulting from accidental release or intrusion resulting from a disaster event, including protection of the environment and public from potential health and safety hazards associated with program implementation.	The proposed Project would follow all best management practices related to hazardous materials during construction.

4.11.2.5 City of Los Angeles Municipal Code

Chapter 6, Article 4, of the Los Angeles Municipal Code requires the construction of spill-containment structures to prevent the entry of forbidden materials, such as hazardous materials, into sanitary sewers and storm drains (LADWP 2016).

4.11.3 Environmental Impacts

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

Less than Significant. Minimal construction activities and changes in current DCTWRP facilities and operations are proposed by the proposed Project. The addition of a new valve within the Japanese Garden's outlet area and buried pipeline between the Japanese Garden and DCTWRP would result in minor physical development in current facilities at the existing DCTWRP that would not require the transport, use, or disposal of hazardous materials. There would be no additional sources of hazardous materials or increases in activities involving hazardous materials would occur under the proposed Project. Impacts would be less than significant.

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

Less than Significant. No proposed construction activities involving hazardous materials or other activities that could result in releases of hazardous materials would occur under the proposed Project. Likewise, the construction of a new valve within the Japanese Garden's outlet area and buried pipeline between the Japanese Garden and DCTWRP would result in minor physical development in current facilities, thus, there would be no additional risks associated with hazardous materials releases relative to existing conditions. Impacts would be less than significant.

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

No Impact. Sensitive land uses are generally considered uses such as playground, schools, senior citizen centers, hospitals, day-care facilities, or other uses that are more susceptible to poor air quality, such as residential neighborhoods. The proposed Project site is in the middle of a large, highly visited recreation area in the City of Los Angeles, including numerous playgrounds and sports facilities. The proposed Project is not located within one-quarter mile of an existing or proposed school. The proposed Project would not have the potential to result in hazardous emissions or handle hazardous or acutely hazardous materials, substances. Therefore, no impact would occur.

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

Less than Significant. The proposed Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The site contains one permitted underground storage tank located on the western edge of the DCTWRP site near the Japanese Garden and parking lot. No other hazardous materials sites are located at DCTWRP. Furthermore, no physical development or other changes in current operations that could potentially result in hazardous materials releases from known hazardous materials site are proposed by the proposed Project. As such, impacts would be less than significant.

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

No Impact. The proposed Project is not located within an airport land use plan or within two miles of a public airport. Therefore, no impact would occur.

HAZ (f). Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the City's General Plan Safety Element, Exhibit H, Critical Facilities & Lifeline Systems, numerous evacuation routes are designated within the City of Los Angeles. The I-405 and US-101 freeways are designated disaster routes that lie adjacent to the proposed Project site. The addition of a new valve within the Japanese Garden's outlet area and buried pipeline between the Japanese Garden and DCTWRP would result in minor physical development in current facilities at the existing DCTWRP that would not require the use of the I-405 or US-101 freeways, therefore the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

HAZ (g). Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant. Multiple brush fires have occurred within or near the Sepulveda Basin Wildlife Reserve directly adjacent to DCTWRP over the last 5 years. According to the City's General Plan Safety Element, Exhibit D, Selected Wildfire Hazard Areas, the southwest portion of the Sepulveda Basin Recreation Area adjacent to US-101 is located within a Selected Wildland Fire Hazard area. The Wildlife

Reserve and DCTWRP are located within urbanized/developed areas and are outside of designated fire hazard severity zones but are surrounded by natural gas transmission lines. The addition of a new valve within the Japanese Garden's outlet area and a buried pipeline between the Japanese Garden and DCTWRP would result in minor construction activities at the current DCTWRP facilities that would not increase the risk of loss, injury or death involving wildland fires. Construction activities will consist of excavating and stockpiling surface material, installing pipeline, backfilling and grading. Thus, there is negligible risk of producing a spark that could result in increased wildfire risk. Impacts would therefore be less than significant.

4.12 Hydrology and Water Quality (WAT)

This section presents existing conditions and potential impacts related to hydrology, water quality, and groundwater associated with implementation of the proposed Project.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. result in a substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☐

4.12.1 Environmental Setting

4.12.1.1 Surface Water Drainage

DCTWRP is approximately 50 percent impervious, consisting mainly of buildings and paved areas, while the remaining portions consist of landscaped and unpaved, open areas. The existing site is graded such that the main DCTWRP entrance driveway and gate near the southwestern boundary of the site are at a higher elevation compared to elevation of the service buildings in the central portion of the site. The area around the service buildings is generally flat, where stormwater runoff flows away from the service buildings towards the north and east (LASAN 2012).

4.12.1.2 Flood Hazards and Flood Control

Following catastrophic flood events in the 1930s, development and expansion of flood management infrastructure was implemented, including confining 51 miles of the river. The width of the channel generally increases in the downstream direction to accommodate the increasing flow rates as runoff accumulates and/or as the channel slope decreases.

The DCTWRP is located within the Sepulveda Dam and Flood Control Basin which are owned and operated by the Corps. A flood barrier surrounds DCTWRP, consisting of a concrete floodwall on the west boundary and earthen berms on the south and east side of the plant. The elevation of the concrete wall and the berms is 715.0 feet above mean sea level. The wall is designed to protect the DCTWRP from inundation during a 100-year storm event, which could reach elevations of 712.0 feet. The elevation on the north side of the property is at or above 712.0 feet above msl, high enough so there is no run-on to DCTWRP (LASAN 2017).

LASAN has prepared the DCTWRP Flood Evacuation Plan that contains procedures for monitoring rainfall levels and potential flooding conditions to minimize the potential flood damage to property, and for the protection and safety of the employees, contractors, and visitors (LASAN 2019a).

DCTWRP also has an established set of operating procedures to implement during wet weather that is specified in LASAN's Wet Weather Preparedness and Operations Plan 2013/2014 (LASAN 2015). This plan addresses storage and containment of increased flows to DCTWRP during wet weather conditions using flow equalization basins and other on-site storage features.

4.12.1.3 Water Quality

The *Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) specifies beneficial uses along the Los Angeles River for each of the four reaches that may be affected by the proposed Project, as shown in Table 4.12-1 (Los Angeles RWQCB 2014).

Table 4.12-1. Beneficial Uses Along the Los Angeles River

Reach	Designated Beneficial Uses
LA River Reach 1 (Estuary to Carson St.)	MUNp*, INDp, PROCp, GWR, WARM, MAR, WILD, RARE, MIGRp, SPWNp, SHELLp; REC1s; REC2 [av]
LA River Reach 2 (Carson St. to Figueroa St.)	MUNp*, INDp, GWR, WARM, WILDp, REC1s, REC2 [av]
LA River Reach 3 (Figueroa St. to Riverside Dr.)	MUNp*, INDp, GWR, WARM, WILD, WET, REC1, REC2 [av]
LA River Reach 4 (Riverside Dr. to Sepulveda Dam)	MUNp*, INDp, GWR, WARM, WILD, WET, REC1, REC2 [av]

Source: Los Angeles Regional Water Board 2014

Key:
COMM: Commercial and Sport Fishing
IND: Industrial Service Supply
MIGR: Migration of Aquatic Organisms
NAV: Navigation
SHELL: Shellfish Harvesting
WET: Wetland Habitat
EST: Estuarine Habitat
MIGR: Fish Migration
MAR: Marine Habitat
MUN: Municipal and Domestic Supply
RARE: Rare, Threatened, or Endangered Species
SPWN: Spawning, Reproduction, and/or Early Development

WILD: Wildlife Habitat

REC1: Water Contact Recreation

REC2: Non-contact Water Recreation

* Designated under SWRCB Resolution No. 88-63 and Resolution No. 89-03. Some designations may be considered for exemption at a later date.

p: Potential beneficial use

s: Access prohibited by Los Angeles County Public Works

av: The High Flow Suspension applies to water contact recreational activities associated with the swimmable goal as expressed in the CWA and regulated under the REC-1 and REC-2 uses, and the associated bacteriological objectives. Water quality objectives set to protect other recreational uses associated with the fishable goal as expressed in the CWA and regulated under the REC-1 use and other REC-2 uses (e.g., uses involving the aesthetic aspects of water) shall remain in effect at all times for waters where the (av) footnote appears.

Section 303(d) of the CWA requires states to develop a list of impaired waters that do not meet water quality standards, known as the 303(d) List. Below Sepulveda Dam (Reach 4), the Los Angeles River is on the 303 (d) List for ammonia, coliform bacteria, copper, lead, nutrients (algae) and trash, as shown in Table 4.12-2.

Table 4.12-2. Water Quality Impairments Along the Los Angeles River

Waterbody	303(d) Listed Impairments	Source	USEPA TMDL Report Completion
LA River Reach 1 (Estuary to Carson St.)	Ammonia	Nonpoint Source, Point Source	03/18/2004
	Cadmium	Unknown	12/22/2005
	Dissolved Copper	Nonpoint Source, Point Source	12/22/2005
	Cyanide	Unknown	Estimated 2019
	Indicator Bacteria	Unknown	03/23/2003
	Lead	Nonpoint Source, Point Source	12/22/2005
	Nutrients (Algae)	Nonpoint Source, Point Source	03/18/2004
	pH	Nonpoint Source, Point Source	01/01/2003
	Trash	Nonpoint Source, Surface Runoff, Urban Runoff/Storm Sewers	07/24/2008
	Dissolved Zinc	Nonpoint Source, Point Source	12/22/2005
LA River Reach 2 (Carson St. to Figueroa St.)	Ammonia	Nonpoint Source, Point Source	03/18/2004
	Copper	Unknown	12/22/2005
	Indicator Bacteria	Unknown	03/23/2012

Waterbody	303(d) Listed Impairments	Source	USEPA TMDL Report Completion
	Lead	Nonpoint Source, Point Source	12/22/2005
	Nutrients (Algae)	Nonpoint Source, Point Source	03/18/2004
	Oil	Natural Sources	Estimated 2019
	Trash	Nonpoint Source, Surface Runoff, Urban Runoff/Storm Sewers	07/24/2008
LA River Reach 3 (Figueroa St. to Riverside Dr.)	Ammonia	Nonpoint Source, Point Source	03/18/2004
	Copper	Unknown	10/29/2008
	Indicator Bacteria	Unknown	03/23/2012
	Nutrients (Algae)	Nonpoint Source, Point Source	03/18/2004
	Toxicity	Unknown	Estimated 2027
	Trash	Nonpoint Source, Surface Runoff, Urban Runoff/Storm Sewers	07/24/2008
LA River Reach 4 (Riverside Dr. to Sepulveda Dam)	Indicator Bacteria	Unknown	03/23/2012
	Nutrients (Algae)	Nonpoint Source, Point Source	03/18/2004
	Toxicity	Unknown	Estimated 2027
	Trash	Nonpoint Source, Surface Runoff, Urban Runoff/Storm Sewers	07/24/2008

Source: SWRCB 2018

4.12.1.4 Groundwater Resources

The primary source of local groundwater for the City of Los Angeles is the SFB. The SFB is the largest of the four adjudicated basins in the Upper Los Angeles River Area covering 112,000 acres. The basin is bounded on the north and northwest by the Santa Susana Mountains, on the north and northeast by the San Gabriel Mountains, on the east by the San Rafael Hills, on the south by the Santa Monica Mountains and Chalk Hills, and on the west by the Simi Hills (DWR 2020).

Precipitation has a direct influence on groundwater recharge and, ultimately, on the amount of groundwater in storage in the SFB. Urban development over time has resulted in a significant portion of the rainfall being collected and routed into lined channels that discharge directly into the Los Angeles River. To partially offset the increased runoff due to urbanization, Pacoima, Big Tujunga and Hansen dams, originally built for flood control, are now utilized to regulate storm flows and to allow recapture

of a portion of the flow in downstream spreading basins operated by the Los Angeles County Department of Public Works and the City of Los Angeles (Los Angeles RWQCB 2012).

In addition to precipitation, groundwater enters the SFB via spreading of imported water into spreading grounds and input of stormwater runoff that contains natural streamflow from the surrounding mountains, infiltration of water flowing in surface washes, reclaimed wastewater in landscape irrigation, and industrial discharges.

4.12.1.5 Water Use

LADWP supplies water to the City of Los Angeles for residential and commercial purposes. LADWP distributes approximately 167 billion gallons (512,500 AF) of water annually to customers. The California Urban Water Management Planning Act requires every urban water supplier to prepare and adopt an Urban Water Management Plan every five years. LADWP updated its Urban Water Management Plan in April 2016, covering 2015 to 2020. The next Urban Water Management Plan update is currently undergoing review and is due for submittal by July 1, 2021.

4.12.1.6 Wastewater

The proposed Project components are located within the wastewater jurisdiction of LASAN which operates and maintains one of the largest wastewater collection systems in the world, serving over four million residential and businesses customers in the City Los Angeles and 29 contracting cities and agencies. LASAN's more than 6,500 miles of public sewers convey about 550 million gallons per day (MGD) of flow from residences and businesses to LASAN's four wastewater and water reclamation plants.

The Hyperion Treatment System is owned and operated by LASAN and includes treatment plants, outfalls, and numerous sewer connections and major interceptors. Treatment plants within the Hyperion Treatment System include HWRP, DCTWRP, and the Los Angeles-Glendale Water Reclamation Plant. Both DCTWRP and Los Angeles-Glendale Water Reclamation Plant are wastewater reclamation plants that treat to tertiary levels and discharge wastewater generated to the Hyperion Treatment System, effectively removing or extracting flows and thereby reducing wastewater flows at HWRP. HWRP has a daily average flow of 362 MGD with the capacity to accommodate 450 MGD.

The existing sewer infrastructure in the vicinity of the proposed Project includes the AVORS and the EVIS. The AVORS and EVIS carry wastewater to DCTWRP (LADWP 2016).

4.12.2 Regulatory Framework

4.12.2.1 Clean Water Act

The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States. Under the CWA, the USEPA has implemented many pollution control standards for industries, as well as water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutants from a point source into navigable waters, unless an NPDES permit is obtained.

4.12.2.2 State of California Constitution Article X, Section 2

Article X, Section 2 prohibits the waste or unreasonable use of water, regulates the method of use and method of diversion of water and requires all water users to conserve and reuse available water supplies to the maximum extent possible.

4.12.2.3 Porter-Cologne Water Quality Control Act

The Porter-Cologne Act is California's comprehensive water quality control law. Porter-Cologne regulates both surface water and groundwater and gives the RWQCB authority to issue Waste Discharge Requirements to recycled water producers. This Act is promulgated in the California Code of Regulations Title 22. Title 22 includes requirements for treatment and reuse of tertiary treated recycled water projects throughout California.

The Act also requires the adoption of water quality control plans (basin plans) by the RWQCBs for watersheds within their regions. The basin plans are reviewed triennially and amended as necessary by the RWQCB, subject to the approval of the California Office of Administrative Law, the SWRCB, and ultimately the USEPA. Moreover, pursuant to Porter-Cologne, these basin plans become part of the California Water Plan. Water quality standards for the proposed Project area are contained in the Water Quality Control Plan for the Los Angeles Region which was adopted in 1994. This plan sets numeric and/or narrative water quality criteria controlling the discharge of wastes to the State's waters and land.

Anti-Degradation Policy (Resolution No. 68-16) requires the RWQCB, in regulating the discharge of waste, to: (a) maintain existing high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial uses, and will not result in water quality less than that described in SWRCB or RWQCB policies; and (b) require that any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters, must meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that: a) a pollution or nuisance will not occur and b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

4.12.2.4 California Water Code

The use of water in the State is governed by the California Water Code or Title 23 of the California Code of Regulations. Title 23 requires that water resources must be fully put to beneficial use of which they are capable, and that the waste, unreasonable use, or unreasonable method of use of water is illegal. The conservation of water is encouraged as a reasonable and beneficial use in the interest of the people and for the public welfare.

Section 461 stipulates that the primary interest of the people of the State of California is the conservation of all available water resources and requires the maximum reuse of reclaimed water as an offset to using potable resources.

Section 1210 assigns exclusive rights to recycled water to the owner of the treatment plant as opposed to any parties who have supplied water discharged into the wastewater collection system.

Section 1211 provides that approval by the SWRCB is required prior to making any change in the point of discharge, place of use, or purpose of use of recycled water. This does not apply to changes in the discharge or use of recycled water that do not result in decreasing the flow in any portion of a watercourse.

Section 13510 declares that the people of the State have a primary interest in the development of facilities to recycle water containing waste to supplement existing surface and underground water supplies and to assist in meeting the future water requirements of the State.

4.12.2.5 Water Conservation Projects Act

The State of California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code Sections 11950-11954), reflected below:

> *"11952 (a). It is the intent of the Legislature in enacting this chapter to encourage local agencies and private enterprise to implement potential water conservation and reclamation projects" (LADWP 2016).*

4.12.2.6 California General Construction Permit

Construction activities, including linear underground projects that disturb one acre or more are required to be covered under California's General Permit for Discharges of Stormwater Associated with Construction Activity, Order 2012-0006-DWQ (NPDES No. CAS000002) (General Construction Permit). Activities subject to permitting include clearing, grading, stockpiling, and excavation.

The General Construction Permit requires the submittal of a Notice of Intent (NOI) to the SWRCB and the development and implementation of a construction Stormwater Pollution Prevention Plan (SWPPP). The SWPPP will specify BMPs that will be implemented to reduce or prevent construction pollutants from leaving the site in stormwater runoff and will also minimize erosion associated with construction. The SWPPP must contain site map(s) that show the construction site perimeter; existing and proposed structures and roadways; stormwater collection and discharge points, general topography both before and after construction; and drainage patterns across the site. Additionally, the SWPPP must describe the monitoring program to be implemented.

4.12.2.7 Waste Discharge Requirements

Discharges of wastewater to surface water and groundwater are regulated by the RWQCBs through issuance of waste discharge requirements (WDRs). Discharges to surface water must meet technology based effluent limitations and water quality-based effluent limitations to achieve water quality standards. The WDRs require a Monitoring and Reporting Program for all discharges. DCTWRP has been issued WDRs from the Los Angeles RWQCB for discharges of tertiary treated wastewater to the Los Angeles River (Order No. R4-2011-0196). The RWQCB also issued WDRs to DCTWRP for reuse of recycled water for irrigation, surface impoundments and industrial uses to protect the underlying groundwater basin (Order No. R4-2008-0040). The WDR requires compliance with numeric effluent limits, monitoring and reporting for constituents with applicable maximum contaminant levels (MCLs) and notification limits (NLs) for drinking water, as well as chloride and TDS in groundwater.

4.12.2.8 City of Los Angeles General Plan Conservation Element

Applicable Framework Elements from the City of Los Angeles General Plan are listed in Table 4.12-2.

Table 4.12-2. Applicable City of Los Angeles General Plan Objectives and Policies

Element	Objective	Policy	Applicability
Framework	Goal 9A. Adequate wastewater collection and treatment capacity for the City and in basins tributary to City-owned wastewater treatment facilities.	9.1.1 – 9.2-5 Policies to collect, treat, and monitor wastewater	The proposed Project would not affect the volume of wastewater treated at the DCTWRP.
Framework	Goal 9B. A stormwater management program that minimizes flood hazards and protects water quality by employing watershed-based approaches that balance environmental, economic and engineering considerations.	9.5-1 – 9.7.3 Policies to manage stormwater and ensure properties are protected from flood hazards in accordance with applicable standards and that existing drainage systems are adequately maintained.	The proposed Project would reduce discharges into the Los Angeles River and would be required to comply with water quality effluent limitations in accordance with the DCTWRP NPDES permit.
Framework	Goal 9C. Adequate water supply, storage facilities, and delivery system to serve the needs of existing and future residents and businesses.	9.8.1 – 9.10.2 Policies to monitor and forecast water use, expand water resources and storage, and ensure that water systems are adequate for planned development.	The proposed Project would increase local water supply for residents and businesses.

4.12.3 Environmental Impacts

To evaluate the effects to Hydrology and Water Quality, the City relied upon the results of the HEC-RAS hydraulic modeling conducted for the proposed Project, which was adapted from the *Los Angeles River Environmental Flows Study* model developed by the Southern California Coastal Watershed Program (Stein et al. 2021a). The methods are described in more detail in Section 5.0. In order to evaluate the range of potential proposed Project impacts, the following flow scenarios were modeled:

- *Minimum Flow Scenario* – this scenario was used to evaluate changes in hydraulic parameters for each month based on the lowest monthly mean daily flow recorded at various locations in the Los Angeles River between January 2008 and June 2019.
- *Average Flow Scenario* – this scenario was used to evaluate changes in hydraulic parameters for each month based on the average monthly mean daily flow recorded at various locations in the Los Angeles River between January 2008 and June 2019.

- *Maximum Flow Scenario* – this scenario was used to evaluate changes in hydraulic parameters for each month based on the highest monthly mean daily flow recorded at various locations in the Los Angeles River between January 2008 and June 2019.

A full description of the model and the complete results are described in full in Section 5, Cumulative Impacts. The model results predict the flows in the Los Angeles River at each reach downstream of the DCTWRP along with the width of the wetted channel in reaches which have been designed by the Los Angeles RWQCB Basin Plan as providing beneficial uses for aquatic habitat. Each Initial Study Checklist question is presented below, and impacts are described for each reach within each question.

WAT (a). Violate any water quality standards or waste discharge requirements?

Less Than Significant. Project construction activities would include demolition of existing paved surface, soil excavation, installation of a new valve and pipeline, and backfilling the excavation areas. These activities would disturb less than one acre of soil and, therefore, would not require an NPDES General Construction Permit. However, standard industry best management practices (BMPs) would be implemented during construction activities to minimize the potential of exposing site soils to erosion and mobilizing sediments in stormwater as well as preventing the accidental release of hazardous materials such as fuels, oils, grease, and lubricants from construction equipment. Implementation of the standard industry BMPs would render the potential for impacts to water quality from construction activity as less than significant.

The proposed Project would involve the reduction of discharges of treated effluent from the DCTWRP to the Los Angeles River. The treatment process and discharge requirements for effluent for the DCTWRP would not change. The City's approved Waste Discharge Requirements/Waste Recycling Requirements ("WDRs/WRRs") per Order No. R4-2016-0144, governing the City's recycling of treated wastewater would also not change. Further, the Los Angeles River Revitalization Master Plan cites DCTWRP as a principal source of nitrogen compounds. The Los Angeles River and its tributaries are impaired for nitrogen compounds (ammonia, nitrite, and nitrate) and related effects such as algae, pH, odor, and scum. The TMDL for nitrogen compounds adopted in 2004 is 1 mg/L. Discharge reductions of recycled water from DCTWRP into the Los Angeles River should improve water quality as it pertains to nitrogen compound concentrations. Although the end-use application of treated wastewater generated at DCTWRP would change over time, with increased deliveries to recycled water users to offset potable water use for these applications, the quality of discharged or recycled effluent would comply with the relevant waste discharge requirements. Therefore, impacts in this regard would be less than significant.

In regard to water quality effects resulting from reduction in flow, the hydraulic model developed for the *Los Angeles River Environmental Flows Study* (Stein et al. 2021a) was used to assess the potential reduction in dilution effects resulting from the proposed Project. The model results for the most conservative scenario using the lowest monthly mean daily flow (April) over the analyzed period indicate that the percent change in flow between current conditions and modeled conditions ranges from -8.6% in Reach 1 to -19.0% in Reach 4. The results for the lowest average monthly mean daily flow (August) over the analyzed period indicate that the percent change in flow between current conditions and modeled conditions ranges from -5.4% in Reach 1 to -12.7% in Reach 4. These reductions are within the range on natural variability of water quality in the Los Angeles River, and are therefore not expected to substantially impact downstream water quality. In addition, the Los Angeles RWQCB would continue to

enforce water quality objectives specified in DCTWRP permits. Accordingly, impacts to water quality along the Los Angeles River would be less than significant.

WAT (b). Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?

No Impact. The proposed Project would reduce the discharge of treated effluent from the DCTWRP to the Los Angeles River and use that water for enhanced recharge of the San Fernando Groundwater basin. The proposed Project would increase groundwater supplies in the region. Therefore, the proposed Project would not deplete groundwater supplies or interfere with groundwater recharge.

WAT (c)(i). Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less Than Significant. The proposed Project would result in the reduction of discharges of treated effluent from the DCTWRP to the Los Angeles River. These reductions in discharges would affect the flow of the Los Angeles River. The hydraulic model for the most conservative scenarios indicates that the percent change in flow between current conditions and modeled conditions range from -8.6% to -19.0% using the lowest monthly mean daily flow (April) and between -5.4% to -12.7% using the lowest average monthly mean daily flow (August) over the analyzed period. In addition, the river primarily consists of a concrete-lined channel so the reduction in flows would not alter the existing drainage pattern or result in substantial erosion or siltation on- or off-site. Based on these factors, proposed Project impacts would be less than significant.

WAT (c)(ii). Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off site?

Less Than Significant. While the proposed Project would alter the volume of water draining to the River from the DCTWRP, it would not increase the rate or amount of surface runoff or alter the drainage pattern of the site or surrounding area in a manner which would result in flooding on- or off-site. Thus, given that flows would be reduced under the proposed Project, impacts in this regard would be less than significant.

WAT (c)(iii). Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant. The recycled water would be applied at the same locations and subject to the application limits at the existing spreading basins. Discharges to the Los Angeles River would be reduced. Therefore, impacts to stormwater systems related to increased runoff volumes or polluted runoff would be less than significant.

WAT (c)(iv). Otherwise substantially degrade water quality?

Less Than Significant. While treated wastewater discharges from the DCTWRP would be reduced, with proportionate increases in deliveries of recycled water to offset potable water use, the treatment

process and discharge requirements for effluent for the DCTWRP would not change pursuant to the City's approved WDRs/WRRs per Order No. R4-2016-0144 governing the City's recycling of treated wastewater. Although the end-use application of treated wastewater generated at DCTWRP would change, the quality of discharged or recycled effluent would comply with the WDRs/WRRs. Thus, impacts in this regard would be less than significant.

WAT (d). Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

WAT (e). Place within a 100-year flood area structures which would impede or redirect flood flows?

No Impact (WAT d-e). The proposed Project does not propose any physical development or changes in current DCTWRP facilities and operations beyond the discharge reductions of wastewater from the Japanese Garden. As such, the proposed Project would not place housing within a 100-year flood hazard area and would not place structures within a 100-year flood area which would impede or redirect flood flows. Thus, no impacts would occur in these regards.

WAT (f). Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

WAT (g). Inundation by seiche, tsunami, or mudflow?

No Impact (WAT f-g). The proposed Project would not involve the construction of any structures or placement of people or structures in an area subject to flooding because of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow. Thus, no impacts would occur in this regard.

4.13 Land Use and Planning (USE)

This section describes the proposed Project's potential impacts to land use, including its relationship with surrounding land uses and its consistency with relevant land use plans, policies, and regulations.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING. **Would the project:**				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

4.13.1 Environmental Setting

The DCTWRP property is surrounded by roads and development, including an Air National Guard Base to the north and I-405 to the east. According to the Los Angeles Municipal Code, DCTWRP is zoned PF (Public Facilities). Land uses permitted in the PF zone include fire and police stations, public libraries, post offices, public health facilities, and public schools. Additionally, flood control, water treatment, water pumping, water distribution, and water filtration facilities are allowed in the PF zone under a conditional use permit. The DCTWRP property is also located within the Los Angeles River Improvement Overlay District.

The portion of the proposed Project site on the DCTWRP property is located within the Encino-Tarzana Community Plan area. The DCTWRP property is designated as Public Facilities under the Community Plan, which is intended to correspond with the standards of need, site area, design and general location of facilities identified in the Service Systems and Safety Elements of the General Plan (LA City 1998).

4.13.2 Regulatory Setting

4.13.2.1 Los Angeles River Master Plan

The Los Angeles County Department of Public Works has published a 2020 Los Angeles River Master Plan that describes a vision for the Los Angeles River to become 51 miles of connected public open space that provides landmark opportunities to reduce flood risk and improve resiliency, support healthy and connected ecosystems, address potential adverse impacts to housing affordability and people experiencing homelessness, promote healthy, safe clean water, and create jobs while fostering opportunities for arts, culture, and community engagement. This plan would update the 2017 Los Angeles River Revitalization Master Plan. The Los Angeles River Master Plan study area includes the entire 51-mile length of the Los Angeles River and covers 18 different jurisdictions.

Specifically, Los Angeles County's 2020 Los Angeles River Master Plan identifies opportunities for the following:

- Over 200 potential project sites that will create local jobs.
- Thousands of acres of publicly accessible open space that will help address public health issues, especially in the most disadvantaged communities.
- Innovative multi-benefit projects that assist in mitigating future disasters, such as flooding, drought, and extreme heat events, while enhancing ecosystem function.
- Actions for affordable housing and homelessness, a key initiative to address displacement in areas vulnerable to gentrification.
- A framework for future community engagement to influence projects built under the plan.

4.13.2.2 City of Los Angeles General Plan Land Use Element

The Encino-Tarzana Community Plan is a part of the City of Los Angeles General Plan Land Use Element and relevant policy items are shown in Table 4.13-1.

Table 4.13-1. Applicable City of Los Angeles General Plan Objectives and Policies

Element	Objective	Policy	Applicability
Encino-Tarzana Community Plan	Preserve existing open space resources and where possible develop new open space	5-1.1 – Encourages the retention of passive and visual open space to provide a balance to the urban development	Following completion of construction activity, the proposed Project site would be revegetated in accordance with the design of the Japanese Garden

4.13.3 Environmental Impacts

USE (a). Physically divide an established community?

No Impact. The proposed Project site is currently developed within the DCTWRP and would direct recycled water to two spreading grounds also within the San Fernando Valley. Beyond the discharge reductions into the Los Angeles River and injection of water into the San Fernando Basin, the proposed Project would result in minimal construction activities within existing DCTWRP facilities and operations. As such, the proposed Project would not have the potential to physically divide an established community.

USE (b). Conflict with applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed Project does not propose changes to the existing land use or zoning designations. The proposed Project would result in minimal physical development activities within existing DCTWRP facilities and operations, and as shown in the table below, would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed Project. The proposed Project is not in conflict with any other habitat conservation plan or natural community conservation plan area.

Table 4.13-2. Applicable City of Los Angeles General Plan Objectives and Policies

Element	Objective	Policy	Applicability
Encino-Tarzana Community Plan	Preserve existing open space resources and where possible develop new open space	5-1.1 – Encourages the retention of passive and visual open space to provide a balance to the urban development	Following completion of construction activity, the proposed Project site would be revegetated in accordance with the design of the Japanese Garden. No conflict would occur.
Encino-Tarzana Community Plan	To preserve existing open space resources and where possible develop new open space.	5-1.1 - Encourage the retention of passive and visual open space to provide a balance to the urban development of the Plan Area	The proposed Project includes installation of a buried pipe which would not be visible once installed, and a new valve at the existing outlet structure which would not result in a reduction of passive and visual open space at the Japanese Garden or Sepulveda Basin. No conflict would occur.
City of Los Angeles General Plan: Conservation Element	Protect the City's archaeological and paleontological resources for historical, cultural research and/or educational purposes.	Continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition, or property modification activities.	A survey was conducted at the proposed Project site and determined that no archaeological or paleontological resources are present. If unidentified resources are observed during construction, the City would follow all required protection measures. No conflict would occur.
City of Los Angeles General Plan: Conservation Element	The discovery of human remains requires evaluation by the county coroner of the nature of the remains and cause of death. If the remains are determined to be of Native American origin, the Native American Heritage Commission is asked to determine the descendants who are to be notified or, if unidentifiable, to	Continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition, or property modification activities.	If human remains are discovered during construction activity, the City would follow these guidelines. However, since the proposed Project area has been previously disturbed, graded, and filled the likelihood of discovering human remains is low. No conflict would occur.

Element	Objective	Policy	Applicability
	establish procedures for burial.		
City of Los Angeles General Plan: Safety Element	Implement comprehensive hazard mitigation plans and programs that are integrated with each other and with the City's comprehensive emergency response and recovery plans and programs.	1.1.6 – Assure compliance with applicable state and federal planning and development regulations, e.g., Alquist-Priolo Earthquake Fault Zoning Act, State Mapping Act, and Cobey-Alquist Floodplain Management Act.	Construction activity would comply with all Building Codes which are designed to protect developments in known areas of geologic hazards. The proposed Project does not involve construction of any structures which would put any occupants at risk. No conflict would occur.
City of Los Angeles General Plan: Conservation Element	Goal 9A. Adequate wastewater collection and treatment capacity for the City and in basins tributary to City-owned wastewater treatment facilities.	9.1.1 – 9.2-5 Policies to collect, treat, and monitor wastewater	The proposed Project would not affect the volume of wastewater treated at the DCTWRP. No conflict would occur.
City of Los Angeles General Plan: Conservation Element	Goal 9B. A stormwater management program that minimizes flood hazards and protects water quality by employing watershed-based approaches that balance environmental, economic and engineering considerations.	9.5-1 – 9.7.3 Policies to manage stormwater and ensure properties are protected from flood hazards in accordance with applicable standards and that existing drainage systems are adequately maintained.	The proposed Project would reduce discharges into the Los Angeles River and would be required to comply with water quality effluent limitations in accordance with the DCTWRP NPDES permit. No conflict would occur.
City of Los Angeles General Plan: Conservation Element	Goal 9C. Adequate water supply, storage facilities, and delivery system to serve the needs of existing and future residents and businesses.	9.8.1 – 9.10.2 Policies to monitor and forecast water use, expand water resources and storage, and ensure that water systems are adequate for planned development.	The proposed Project would increase local water supply for residents and businesses. No conflict would occur.
City of Los Angeles General Plan: Housing Element	Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services and transit.	2.2-5 – Provide sufficient services and amenities to support the planned population while preserving the neighborhood for those currently there.	The proposed Project would increase groundwater supplies which would support the planned population. No conflict would occur.

Element	Objective	Policy	Applicability
City of Los Angeles General Plan: Housing Element		2.4.1 – Promote preservation of neighborhood character in balance with facilitating new development.	The proposed Project would not result in population growth or impacts to neighborhood character. No conflict would occur.

4.14 Mineral Resources (MIN)

This section addresses the impacts of the proposed Project on mineral resources. The analysis also describes the existing physical conditions of the proposed Project area and the regulatory setting as it relates to mineral resources.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

4.14.1 Environmental Setting

Mineral Resources Zones within the City of Los Angeles have been identified by the State Geologist according to the known or inferred mineral potential of such sites. Any proposed development plan must consider access to such deposits for the purposes of extraction. According to the City of Los Angeles General Plan, no portion of the DCTWRP is located in an area identified as a Mineral Resource Zone site.

4.14.2 Regulatory Setting

Sections 2761(a) and (b) and 2790 of the Surface Mining and Reclamation Act provide for a mineral lands inventory process termed classification-designation. The California Division of Mines and Geology and the State Mining and Geology Board are the state agencies responsible for administering this process. The primary objective of the process is to provide local agencies with information on the location, need, and importance of minerals within their respective jurisdictions. It is also the intent of this process that this information be considered in future land-use decisions planning decisions. Under Surface Mining and Reclamation Act, local land use jurisdictions are the enforcing lead agencies for mineral resource issues, which state agencies guide and regulate city and county enforcement of Surface Mining and Reclamation Act.

4.14.3 Environmental Impacts

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

No Impact. No portion of the proposed Project site or surrounding area is considered a known mineral resource area and no mineral resource extraction occurs in the proposed Project vicinity. As such, the

proposed Project would not have the potential to result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

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

No Impact. The proposed Project site is currently developed with no portion of the proposed Project site or surrounding area considered a known mineral resource area and no mineral resource extraction occurs in the proposed Project vicinity. As such, the proposed Project would not result in the loss of availability of, or access to, a locally important mineral resource recovery site.

4.15 Noise (NOI)

This section provides an evaluation of noise and vibration levels associated with construction and operation of the proposed Project. Topics addressed include short- and long-term increases in ambient noise levels associated with construction and operational activities; potential exposure of sensitive receptors to excessive noise and vibration levels; and mitigation measures to reduce noise and vibration impacts, where feasible.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Noise. Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.15.1 Environmental Setting

Noise at and around the DCTWRP is characteristic of a densely populated urban area, with major noise sources being I-405; Victory Blvd; and noise from aircraft taking off from and landing at the Van Nuys Airport, which is located approximately two miles north-northwest of the DCTWRP.

The proposed Project area overlaps with the project area from the 2019 DCTWRP Easement Implementation Project Initial Study/Mitigated Negative Declaration (IS/MND) (LASAN 2019a). A noise study was conducted for the 2019 DCTWRP IS/MND to characterize the existing noise environment around the proposed Project site, which is directly applicable to this proposed Project. Ambient noise was monitored at four locations using a SoundPro DL Sound Level Meter and measurements were recorded during the mid-morning and early afternoon hours to capture peak noise levels (off-peak traffic levels). The four locations include: just inside the entrance to the Japanese Garden at the southern end of the garden; at the northeast corner of the garden adjacent to the Plant; on the north side of Victory Blvd. adjacent to Blewett Ave.; and at Woodley Park approximately adjacent to the Plant entrance. Table 4.15-1 provides the result of this study. As shown in Table 4.15-1, the existing ambient sound levels range between 55 and 78.5 dBA. The lowest ambient sound level of all the monitoring locations is at the Japanese Garden, south with a sound level of 55 dBA, which is closest to the proposed Project area. Traffic was the primary source of noise at each site.

Table 4.15-1. Existing Ambient Noise Levels

Location	Measurement 1 (dB)	Measurement 2 (dB)	Average (dB)
Victory Blvd.	78.3	78.5	78.4
Woodley Park	60.3	61.1	60.7
Japanese Garden, north	58.7	61.2	60.0
Japanese Garden, south	55	57.7	56.4

Source: LASAN 2019a

4.15.1.1 Sensitive Receptors

With regard to noise, sensitive receptors are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. They typically include residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas. The nearest sensitive receptor to the construction site at the Japanese Garden is the residences approximately 500 feet to the north, across from Victory Blvd.

4.15.2 Regulatory Setting

4.15.2.1 Federal Transit Administration Guidance

The Federal Transit Administration has published guidance for assessing building damage impacts from vibration. Table 4.15-2 shows the Federal Transit Administration building damage criteria for vibration. Federal Transit Administration has also established criteria related to vibration annoyance, which are shown in Table 4.15-3.

Table 4.15-2. Construction Vibration Damage Criteria

Building Category	**PPV** (inches per second)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Source: FTA 2006.

Table 4.15-3. Construction Vibration Annoyance Criteria

Land Use Category	Vibration Impact Level (VdB re micro-inch per second)		
	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
1. Buildings where vibration would interfere with interior operations.	65[d]	65[d]	65[d]
2. Residences and buildings where people normally sleep.	72	75	80
3. Institutional land uses with primarily daytime use.	75	78	83

[a] Frequent Events are defined as more than 70 vibration events of the same source per day.

[b] Occasional Events" are defined as between 30 and 70 vibration events of the same source per day.

[c] Infrequent Events" are defined as fewer than 30 vibration events of the same kind per day.

[d] This criterion limit is based on levels that are acceptable for most moderately-sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

Source: FTA 2006

4.15.3 Environmental Impacts

4.15.3.1 Significance Thresholds

Construction Equipment Significance Thresholds

Based on guidelines from the Los Angeles Department of City Planning, construction noise impacts would be considered significant if the following occurred:

- Construction activities being more than one day would exceed existing ambient exterior sound levels by 10 dBA (hourly L_{eq}) or more at a noise-sensitive use;
- Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA (hourly L_{eq}) or more at a noise-sensitive use; or
- Construction activities of any duration would exceed the ambient noise level by 5 dBA (L_{eq}) at a noise-sensitive use between the hours of 9:00 p.m. and 7 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

Construction Truck Significance Criteria

Project-related truck traffic would occur intermittently during daily construction activities. Truck activity could increase existing daytime noise levels along the roadway network. Based on what is described by Caltrans and FTA as a noticeable increase in mobile source noise, the proposed Project would have a significant impact related to off-site truck noise if mobile source noise causes the ambient noise level measured at the property line of the affected uses to increase by 3 dBA.

Operational Significance Criteria

In addition to applicable City standards and guidelines that would regulate or otherwise moderate the proposed Project's operational noise impacts, the following criteria are used to assess the impact of the proposed Project's operational noise sources:

- Project operations would cause ambient noise levels at off-site locations to increase by 3 dBA CNEL or more to or within "normally unacceptable" or "clearly unacceptable" noise/land use compatibility categories, as defined by the State 2017 General Plan Guidelines.
- Project operations would cause any 5 dBA CNEL or greater noise increase.

Vibration Significance Criteria

The construction-related vibration analysis considers the potential for building damage and annoyance. There are no standards directly related to a sensitive land use like the Japanese Garden. The Japanese Garden has been assessed using the federal standards for land uses with high sensitivity to vibration. The proposed Project would result in a significant construction or operational vibration impact if:

- Vibration levels would exceed 0.3 inches per second or 72 VdB at engineered concrete and masonry buildings (e.g., typical residential buildings).
- Vibration levels would exceed 0.12 inches per second or 65 VdB at the Japanese Garden.

NOI (a). Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant. Noise sensitive areas typically include residential areas, schools, convalescent hospitals, acute care facilities, and park and recreational areas. The proposed Project site is located in a highly urbanized area characterized by a wide variety of land uses with numerous sensitive receptors located within and in the vicinity of the proposed Project site. The nearest sensitive receptor to the construction site at the Japanese Garden is the residences approximately 500 feet to the north, across from Victory Blvd. During construction, noise will be generated from the use of construction equipment and from vehicles used to transport crews and materials to the project area. Noise levels for typical construction equipment listed in the project description at various distances from the equipment have been calculated previously and published in various reference documents. Typical expected equipment noise levels listed in the Federal Highway Association Roadway Construction Noise Model User's Guide (FHWA 2006) were used for this evaluation. The User's Guide provides the most recent comprehensive assessment of noise levels from construction equipment. Table 4.15-4 summarizes typical usage factors, and maximum noise levels, for representative construction equipment expected to be used.

Table 4.15-4. Typical Construction Equipment Noise Levels

Location	Acoustical Usage Factor (%)	Specified Lmax at 50 feet (dBA)
Excavator	40	85
Loader	40	80

Location	Acoustical Usage Factor (%)	Specified Lmax at 50 feet (dBA)
Crane	16	85
Water Truck	40	84
Dump Truck	40	84
Compactor	20	80
Concrete Mixer Truck	40	85
Paver	50	85
Roller	20	85
Pickup Truck	40	55

Source: FHWA 2006

The proposed Project includes 18 months of construction to create a new valve and pipeline. Note that construction would not be continuous throughout this entire duration and is estimated to be completed in a total of six days. As shown in Table 4.13-4, the loudest typical construction equipment generally emits noise in the range of 80 to 85 dBA at 50 feet, with usage factors of up to 40 percent and 50 percent. Noise at any specific receptor is dominated by the closest and loudest equipment. The types and numbers of construction equipment near any specific receptor location will vary over time. Construction of the proposed Project will temporarily increase noise levels in the vicinity of the project area. Because noise decreases with distance and varies according to the construction phase, noise levels at the nearest sensitive receptors (residences) will vary depending on the equipment being used and the distance between the construction activity and the residences. The site restoration (grading, paving, landscaping) activities associated with Phase 4 of construction will generate the most noise at the nearest sensitive receptors during construction activities involving restoration activities including replacement of concrete and asphalt surfaces and restoring site landscaping. In general, equipment was assumed to operate simultaneously at the construction area nearest to potentially affected residential receptors (approximately 500 feet from construction activities). These assumptions represent a worst-case scenario as the various activities would typically be dispersed throughout the site and not operate continuously at one, close-by location.

Noise levels are determined based on the L_{eq}, which is calculated from the L_{max} and the acoustical usage factor (the percentage of time that the equipment is typically in use over a given period) using the following equation (FTA 2006):

$$\mathbf{L_{eq} = L_{max} + 10 \log (usage\ factor)}$$

The cumulative noise for the equipment used during the noisiest phase of construction is propagated to the property boundary along Victory Blvd. to the north to estimate the maximum noise levels at nearby residences resulting from proposed Project as summarized in Table 4.15-5. The applicable noise threshold for construction of the proposed Project is the potential for the proposed Project to increase ambient exterior noise levels by 5 dBA and the nearest sensitive use. These estimates assume a clear line of sight to the property line without any attenuation, although the actual environment includes

undulating terrain and several barriers to noise between the noise source and the nearest residential receptors.

Table 4.15-5. Summary of Calculated Construction Noise Levels and Impact Determination at Property Line at Victory Blvd.

Project Activity	Calculated Construction Noise Levels, Leq (dBA)	Ambient Noise Levels at Victory Blvd. (dBA)	Ambient + Construction Noise Levels (dBA)	Increase in Noise Level (dBA)	Above Significance Threshold?
Construction of Diversion Facility at DCTWRP Japanese Garden	70.2	78.4	79.0	0.6	No

Estimated maximum noise levels resulting from construction activities are calculated to be 70.2 dBA. When combined with the existing noise, construction noise would increase the noise levels at Victory Blvd. to 79.0 dBA, resulting in an increase in ambient noise levels at the property line by 0.6 dBA (hourly L_{eq}). Since noise levels dissipate with distance from the source, the increase in noise levels at the nearest residential receptors along Victory Blvd. would be less than 0.6 dBA (hourly L_{eq}). Therefore, construction activities would not increase ambient noise levels at the nearest residential receptors and would not exceed the applicable threshold for construction activities lasting more than 10 days (i.e., would not increase ambient noise levels by 5 dBA [hourly L_{eq}] or more). As such, the noise impact associated with construction activities would be considered less than significant. The increased application of recycled water to offset potable water use within the service area and adjacent portions of the City of Los Angeles would not result in any changes in noise generation associated with operation of distribution facilities in these areas. In addition, as discussed previously, construction-related noise impacts of recycled water distribution facilities were previously subject to separate CEQA review, and impacts were determined to be less than significant. As such, the proposed Project would not generate any noise or an increase in noise levels that would expose persons to or generate noise levels in excess of standards established in the City's General Plan or noise ordinance. Impacts would be less than significant.

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

Less than Significant. Construction operations would result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, with low rumbling sounds and detectable vibrations at moderate levels, and damage to nearby structures at the highest levels. Construction activities most likely to cause vibration include heavy construction equipment and compaction operations. Although all heavy, mobile construction equipment has the potential of causing at least some perceptible vibration when operating close to buildings, the vibration is usually short term and is not of sufficient magnitude to cause building damage. Heavy equipment such as front-end loaders, or cranes would not operate close enough to any residences or sensitive receptors to cause vibration impact. The proposed Project does not propose development or any change in current operations or facilities at the DCTWRP that could result in new or increased sources of ground-borne noise or vibration. As discussed in Response (a), above, construction-related vibration impacts of recycled water distribution facilities were previously subject to separate

CEQA review, and impacts were determined to be less than significant. As such, implementation of the proposed Project would not result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

NOI (c). For a project located within the vicinity of private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. As noted previously, the proposed Project site is not located within an airport land use plan. The proposed Project site is also not located within two miles of a public airport or private airstrip; therefore, no impact would occur. As such, the proposed Project would not have the potential to expose people residing or working in the proposed Project area to excessive noise levels associated with airstrip operations or aircraft. No impact would occur in this regard.

4.16 Population and Housing (POP)

This analysis in this section uses population, employment, and household and housing information to determine the potential for the proposed Project to cause substantial population growth or accelerate growth that exceeds projected or planned levels.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.16.1 Environmental Setting

The Van Nuys neighborhood is located northwest of downtown Los Angeles. The neighborhood encapsulates approximately nine square miles, and as of 2008 had a population of approximately 110,700 (Los Angeles Times 2017). Adjacent neighborhoods include North Hills, Panorama City, Sun Valley, Valley Glen, Sherman Oaks, Lake Balboa, and Northridge, as well as the Sepulveda Dam Reservoir itself, which is non-residential.

DCTWRP processes wastewater generated by users throughout the San Fernando Valley and provides reclaimed water to LADWP customers within the same region. Recycled water can be used for landscape irrigation, industrial purposes, or groundwater recharge.

4.16.1.1 Population and Housing

The total population for the City in 2008, according to Southern California Association of Governments, was approximately 3,770,500 residents. According to projections, the City of Los Angeles will experience an average annual rate of growth of 0.5 percent from 2008 to 2035. This rate of growth is similar to the projected rate of growth for Los Angeles County as a whole (0.6 percent) (Southern California Association of Governments 2020b).

4.16.1.2 Households and Housing

In 2008 the number of households was 1,309,900 in the City of Los Angeles and over 3.5 million in Los Angeles County as a whole. During the 2003 to 2008 period, the City of Los Angeles experienced an annual average growth rate in the number of households of 0.3 percent, which is the same annual average growth rate seen in the County. From 2008 to 2035, the City of Los Angeles is expected to experience an annual average growth rate in the number of households of 0.9 percent, which is higher

than the rate for Los Angeles County for that same time span (0.7 percent). By 2035, the number of households in the City and County of Los Angeles is projected to be 1,626,600 and 3,852,000, respectively (SCAG 2012).

4.16.2 Regulatory Setting

General Plan Housing Element policies applicable to the proposed Project are listed in Table 4.16-1. Additionally, the Encino-Tarzana Community Plan is a part of the City of Los Angeles General Plan Land Use Element.

4.16.2.1 City of Los Angeles General Plan Housing and Land Use Elements

Table 4.16-1. Applicable City of Los Angeles General Plan Objectives and Policies

Element	Objective	Policy	Applicability
Housing Element	Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services and transit.	2.2-5 – Provide sufficient services and amenities to support the planned population while preserving the neighborhood for those currently there.	The proposed Project would increase groundwater supplies which would support the planned population.
Housing Element		2.4.1 – Promote preservation of neighborhood character in balance with facilitating new development.	The proposed Project would not result in population growth or impacts to neighborhood character.

4.16.3 Environmental Impacts

POP (a). Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant. The proposed Project does not involve the construction of any new homes or businesses which would directly induce population growth. Project implementation would provide additional water supplies that could indirectly foster minor population growth in the area; but would result in increased potable water conservation and enhanced supply reliability for the existing population in the San Fernando Valley. Therefore, impacts would be less than significant.

POP (b). Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?

No Impact. As discussed above, the proposed Project does not propose any physical development or changes in current DCTWRP facilities or operations beyond the discharge reductions in the Wastewater Change Petition, and therefore the proposed Project would have no potential to displace people or housing.

4.17 Public Services (PUB)

This section describes the existing conditions and regulations applicable to public services and recreational resources in the proposed Project vicinity and analyzes the proposed Project's potential to create impacts to public services and recreation.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☐	☒

4.17.1 Environmental Setting

Public services in the proposed Project area include fire protection by the Los Angeles Fire Department, police protection by the City of Los Angeles Police Department, numerous public schools in the Van Nuys neighborhood (primarily operated by LAUSD), and dozens of public libraries. The closest hospital is the Valley Presbyterian Hospital at 15107 Vanowen Street in Van Nuys approximately 2.1 miles from the proposed Project area. The second closest hospital for emergency medical services is the Encino Hospital Medical Center at 16237 Ventura Boulevard in Encino approximately 2.8 miles from the proposed Project site (LA County 2020). Ambulance services for medical emergencies are provided by several businesses within 5 miles of the proposed Project area, including MedResponse, V & A Medical Transportation, M &S Medical Transportation, AMT Ambulance, PRN Ambulance, American Professional Ambulance, and Ambulife Ambulance Services. Ambulances are dispatched by 911 operators.

4.17.2 Regulatory Setting

4.17.2.1 City of Los Angeles Municipal Code

DCTWRP is zoned "Public Facilities" (PF). Land uses permitted in the PF zone include fire and police stations, public libraries, post offices, public health facilities, and public schools. Additionally, flood control, water treatment, water pumping, water distribution, and water filtration facilities are allowed in the PF zone under a conditional use permit. The DCTWRP property is also located within the Los Angeles River Improvement Overlay District.

4.17.3 Environmental Impacts

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

PUB (a-i). Fire protection?

No Impact. As no development or changes in current operations are proposed under the proposed Project, it is anticipated that no increases in the demand for fire protection services or for physical or staff resources associated with fire protection would result from its implementation. No impact would occur in this regard.

PUB (a-ii). Police protection?

No Impact. As no development or changes in current operations are proposed under the proposed Project, it is anticipated that no increases in the demand for police protection services or for physical or staff resources associated with police protection would result from its implementation. No impact would occur in this regard.

PUB (a-iii). Schools?

No Impact. The proposed Project would does not involve any physical development or other changes that could generate students or increase demands for schools or other related facilities. No impact would occur in this regard.

PUB (a-iv). Recreation and Parks?

Less than Significant. The proposed Project would not introduce any new population that would create additional demands on existing or planned park facilities. Construction activity would result in temporary restrictions on public access to the Japanese Garden. However, following completion of construction activity, the Japanese Garden would be replanted and reopened to the public. Therefore, impacts would be less than significant. Please see additional discussion regarding recreation along and within the River under Section 4.16, Recreation.

PUB (a-v). Other public facilities?

No Impact. No other public facilities are anticipated to have the potential to be subject to adverse physical impacts associated with implementation of the proposed Project. No impact would occur in this regard.

4.18 Recreation (REC)

This section describes the environmental and regulatory settings and discusses potential impacts associated with construction and operation of the proposed Project with respect to recreational resources.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. RECREATION. Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.18.1 Environmental Setting

The DCTWRP is adjacent to the Sepulveda Basin Recreation Area which includes various outdoor recreational facilities including Lake Balboa/Anthony C. Beilenson Park, Woodley Park, Corinthian Cricket Club, and the Japanese Garden as well as various biking and walking trails. Construction activity for the proposed Project would occur within the Japanese Garden. The Japanese Garden is a public garden that uses the reclaimed water from the DCTWRP in water features for public enjoyment. The Garden, designed by Dr. Koichi Kawana, was installed in 1984 and includes a zen garden, waterfalls, three Buddha stones, and a water garden.

Although construction activity would occur at the Japanese Garden, the proposed Project operation will modify discharges to the Los Angeles River downstream from Sepulveda Dam and the Sepulveda Basin Recreation area. Accordingly, the following describes the Los Angeles River downstream from Sepulveda Dam (Reaches 1 through 4) and its current recreational uses.

Reaches 1, 2, and 3 of the Los Angeles River are accessible to the public via a continuous bike path along their course from the estuary to the confluence of Burbank Western Channel. In addition, the sloping walls and open fencing between the path and the river channel allow direct access to the channel bottom. Reach 4 has a short (0.85-mile) trail that runs along the channel allowing bikers, strollers, and other users visual access to the channel. This reach of the river is situated between two highly frequented areas, the Sepulveda Basin (Reach 5) and the Glendale Narrows (Reach 3).

Field monitoring and user surveys conducted by the Los Angeles RWQCB in 2013 (Los Angeles RWQCB 2014) documented recreational use of the bike paths and indicated that water contact recreation was not uncommon in the main stem of the river, particularly in Reaches 2 and 3. In conjunction with kayaking, other activities such as wading, swimming, and fishing take place in these reaches. While the main-stem channel is currently only visually accessible along Reach 4, it is directly accessible from Reaches 3 and 5 for kayaking and other forms of non-motorized boating.

In 2019, a study was conducted by the Council for Watershed Health and the Southern California Coastal Water Research Project (SCCWRP, Sanchez and Stein 2019) to further refine the data collected by the Los Angeles RWQCB in 2013. The results of the study highlighted additional recreational uses of the Los Angeles River, primarily uses adjacent to the river channel including art, photography, and wildlife viewing. A summary of the in-channel and adjacent uses by reach is provided in Table 4.18-1.

Table 4.18-1. Summary of Recreational Uses Along the Los Angeles River by Reach

Reach	In-Channel Uses	Adjacent Uses
1	Kayaking, Wading, Fishing, Motorcycle Riding	Walking/Running, Biking, Horseback Riding, Art/Photography, Scooting, Wildlife Viewing, Educational Activities, Aesthetic Enjoyment, Community Events
2	Kayaking, Fishing, Walking, Community Events	Walking, Biking, Horseback Riding, Art/Photography, Skateboarding, Wildlife Viewing, Informal Gatherings/Picnicking, Educational Activities
3	Kayaking, Wading, Fishing, Swimming	Walking/Running, Biking, Horseback Riding, Art/Photography, Skateboarding, Wildlife Viewing, Informal Gatherings/Picnicking, Educational Activities, Community Events
4	Boating	Walking/Running, Biking, Horseback Riding, Art/Photography, Skateboarding, Wildlife Viewing, Picnicking, Educational Activities, Community Events
5	Kayaking, Wading, Fishing, Swimming	Walking/Running, Biking, Horseback Riding, Art/Photography, Skateboarding, Wildlife Viewing, Aesthetic Enjoyment, Educational Activities
6	None Identified	Walking/Running, Biking, Art/Photography, Skateboarding, Wildlife Viewing

Source: Sanchez and Stein 2019

4.18.2 Regulatory Setting

4.18.2.1 The City of Los Angeles General Plan Framework Element

The City of Los Angeles General Plan Framework Element is a strategy for long-term growth that sets a citywide context to guide the update of the community plan and citywide elements. Chapter 9, Infrastructure and Public Services, of the Framework Element includes goals, objectives, and policies addressing public services.

Table 4.18-2. Applicable City of Los Angeles General Plan Objectives and Policies

Element	Objective	Policy	Applicability
Open Space	Goal 1: To ensure the preservation and conservation of sufficient open space to serve the recreational, environmental, health and safety needs of the City.	Open space areas shall be provided or developed to serve the needs as appropriate to their location, size, and intended use of the communities in which they are located, as well as the City and region as a whole.	The proposed Project would not affect any lands designated as Open Space.
Public Recreation	Develop and locate public facilities to provide the greatest benefit to the greatest number of people at the least cost and with the least environmental impact.	Recreational facilities and services should be provided for all segments of the population on the basis of present and future projected needs, the local recreational standards, and the city's ability to finance.	The proposed Project needs to consider the potential impacts of reduction in discharge to the Los Angeles River on recreational activities.

4.18.2.2 Southern California Association of Governments 2008 Regional Comprehensive Plan

The Southern California Association of Governments 2008 Regional Comprehensive Plan is a coordinated plan by local municipalities for the Southern California Region. Goals specified in the plan that apply to the proposed Project are found in the Community Open Space goals, as follows: “enhance the region’s parks, trails and community open space infrastructure to support the aesthetic, recreational and quality of life needs, providing the highest level of service to our growing region by: 1) creating new community open space that is interconnected, accessible, equitably distributed, provides public health benefits, and meets the changing and diverse needs of communities; and, 2) improving existing community open space through urban forestry and other programs that provide environmental benefits.”

4.18.2.3 ConnectUS Action Plan

The ConnectUS Action Plan was developed to improve historical and cultural connections in downtown Los Angeles by enhancing pedestrian and bicycle travel options through and between communities. Objective 6 of this plan focuses on improving access to open spaces, including the Los Angeles River, parks, plazas, and public spaces in the area.

4.18.2.4 Los Angeles Regional Water Quality Control Board Basin Plan

The *Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* designates the mainstem of the Los Angeles River with the following beneficial uses with regard to recreation:

- REC-1 for water contact recreation which is defined as “uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses

include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs"; and,

- REC-2 for non-contact water recreation which is defined as "uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities".

4.18.3 Environmental Impacts

To evaluate the effects to aquatic Recreation, the City relied upon the results of the HEC-RAS hydraulic modeling conducted for the proposed Project, which was adapted from the *Los Angeles River Environmental Flows Study* model developed by the Southern California Coastal Watershed Program (Stein et al. 2021b). The methods are described in more detail in Section 5.0. In order to evaluate the range of potential impacts of the proposed Project, the following flow scenarios were modeled:

- *Minimum Flow Scenario* – this scenario was used to evaluate changes in hydraulic parameters for each month based on the lowest monthly mean daily flow recorded at various locations in the Los Angeles River between January 2008 and June 2019.
- *Average Flow Scenario* – this scenario was used to evaluate changes in hydraulic parameters for each month based on the average monthly mean daily flow recorded at various locations in the Los Angeles River between January 2008 and June 2019.
- *Maximum Flow Scenario* – this scenario was used to evaluate changes in hydraulic parameters for each month based on the highest monthly mean daily flow recorded at various locations in the Los Angeles River between January 2008 and June 2019.

A full description of the model and the complete results are described in full in Section 5, Cumulative Impacts. The model results predict the flows in the Los Angeles River at each reach downstream of the DCTWRP along with the width of the wetted channel in reaches which have been designed by the Los Angeles RWQCB Basin Plan as providing beneficial uses for aquatic habitat. Each Initial Study Checklist question is presented below, and impacts are described for each reach within each question.

REC (a). Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant. While the proposed Project does not propose to modify or alter any existing recreational facilities, construction of the proposed Project would require closure of the Japanese Garden for up to 3-months which, given the limited duration of impact, is considered less than significant.

The proposed Project would modify discharges to the Los Angeles River which could impact recreational uses of the river. The DCTWRP discharges into the river downstream of Sepulveda Dam into Reach 4, as designated in the Los Angeles RWQCB RECUR Study (LARWQCB 2014).

Based on the reductions in discharge associated with the proposed Project, the primary potential impacts would be to in-channel recreational uses, such as kayaking/boating, and fishing. Kayaks and canoes typically have a total depth of around 14-16 inches, with about half that depth being below the

waterline. As a rough guide, any flow deeper than one foot (12-inches) is likely to be suitable for the type of craft used on the Los Angeles River (ESA 2017; ESA 2018).

Similarly, flows suitable for fishing are those at least one to two feet. The maximum depth that anglers can comfortably wade is 36 inches (Sanchez and Stein 2019). In order to evaluate the scenarios with the greatest potential for impacts, the hydraulic model was run using the month with the lowest monthly mean daily flow (April) and the month with the lowest average monthly mean daily flow (August) over the analyzed period between January 2008 and June 2019 (as discussed in Section 4.12 Hydrology and Water Quality).

The significance of potential impacts was assessed by evaluating the change in maximum water depth to determine if the proposed Project changes would reduce water depths below one foot in areas that currently exceed this depth or, if current maximum water depth is below this threshold, then the percent change in maximum water depth between current and modeled conditions, using the hydraulic model created by SCCWRP, which is described in fully in Section 5.1. Modeling was conducted at seven locations along the river: 1) at Sepulveda Boulevard in Reach 4 immediately downstream of the DCTWRP discharge point; 2) five locations within Reach 3 which includes the open-bottom channel area and the area with the current highest in-channel recreational use to characterize conditions upstream and downstream of the DCTWRP facility discharge and the flow inputs from the Burbank and Glendale water reclamation plants; and, 3) at Willow Avenue in Reach 1 to characterize conditions at the downstream end of the Los Angeles River. These locations are shown in Figure 4.10-2, and the model results are summarized in Tables 5.1-1 and 5.1-2.

The model results for the most conservative scenario using the lowest monthly mean daily flow (April) over the analyzed period indicate that, under current conditions, only the maximum water depth at the Elysian Valley node in Reach 3 would support in-channel canoe or kayak use and fishing. The maximum water depths at each of the other nodes are less than one foot under current conditions, ranging from 0.11 to 0.96 feet, as well as the modeled proposed Project scenarios, ranging from 0.09 to 0.82 feet. The Elysian Valley area represents the portion of the river with the highest in-channel recreational use and the model results indicate that maximum water depth exceeds one foot for all the modeled proposed Project scenarios, ranging from 1.68 feet under current conditions to 1.41 feet with the flow reductions from the Japanese Garden discharge. Given that the Elysian Valley area is the only portion of the river that could support in-channel uses under current conditions based on the maximum depth threshold of one-foot and that maximum water depths exceed one-foot under the modeled proposed Project scenarios, the proposed Project impacts would be less than significant.

The model results using the lowest average monthly mean daily flow (August) over the analyzed period indicate that, under current conditions, the water depths between Sepulveda Boulevard in Reach 4 and the “Glendale” node in Reach 3 do not support in-channel canoe or kayak use or fishing as the maximum water depths range between 0.14 and 0.48 feet. In these areas, the potential impacts under the two proposed Project-related scenarios show a decrease in maximum water depth between 0 and 0.05 feet (or between 0% and 13.6% relative to maximum depth under current conditions). The modeled areas downstream of the “Glendale” node indicate maximum depths of one-foot or greater under current conditions including a depth of over two-feet in the Elysian Valley area, the portion of the river with the highest in-channel recreational use. Under the two modeled proposed Project scenarios, the maximum water depths are maintained above one foot except Model Node LA11 that is situated between the

"Glendale" node and Elysian Valley. At this location, the maximum water depth decreases from 1.01 feet under current conditions to 0.98 feet, without the average discharge from Japanese Garden. While the maximum water depth at Model Node LA11 drops below the one-foot threshold, the maximum reduction in depth represents a 10.9% decrease in this area, and the maximum water depths in the areas downstream including the area of highest in-channel use, the Elysian Valley area, exceed the one-foot threshold under proposed Project-related conditions. Accordingly, given the limited reduction in the maximum water depth at Model Node LA11 and that maximum water depths exceed one-foot under the modeled proposed Project scenarios in the areas downstream of this node including the Elysian Valley area, proposed Project-related impacts would be less than significant.

Table 4.16-3. Hydraulic Model Results for the Month with the Lowest Monthly Mean Daily Flow (April) Over the Analyzed Period between January 2008 and June 2019

River Reach	Model Node	Modeled Scenario	Flow (cfs)	Max Depth (ft)	% Change in Max Depth between Current and Modeled Condition
4	Sepulveda Blvd	Current Conditions	35.2	0.27	0.0%
		Current Conditions minus Japanese Garden Discharge	28.5	0.23	-14.8%
3	LA14	Current Conditions	39.8	0.21	0.0%
		Current Conditions minus Japanese Garden Discharge	33.2	0.24	14.3%
	LA13	Current Conditions	41.8	0.11	0.0%
		Current Conditions minus Japanese Garden Discharge	35.2	0.1	-9.1%
	Glendale	Current Conditions	49.6	0.42	0.0%
		Current Conditions minus Japanese Garden Discharge	42.9	0.39	-7.1%
	LA11	Current Conditions	49.9	0.81	0.0%
		Current Conditions minus Japanese Garden Discharge	43.3	0.75	-7.4%
	Elysian Valley	Current Conditions	49.9	1.68	0.0%
		Current Conditions minus Japanese Garden Discharge	43.3	1.59	-5.4%
1	Willow Ave	Current Conditions	78.2	0.96	0.0%
		Current Conditions minus Japanese Garden Discharge	71.5	0.91	-5.2%

Table 4.16-4. Hydraulic Model Results for the Month with the Lowest Average Monthly Mean Daily Flow (August) Over the Analyzed Period between January 2008 and June 2019

River Reach	Model Node	Modeled Scenario	Flow (cfs)	Max Depth (ft)	% Change in Max Depth between Current and Modeled Condition
4	Sepulveda Blvd	Current Conditions	56. 9	0.37	0.0%
		Current Conditions minus Japanese Garden Discharge	49.7	0.34	-8.1%
3	LA14	Current Conditions	63.8	0.22	0.0%
		Current Conditions minus Japanese Garden Discharge	57.1	0.20	-9.1%
	LA13	Current Conditions	67.0	0.14	0.0%
		Current Conditions minus Japanese Garden Discharge	60.3	0.14	0.0%
	Glendale	Current Conditions	79.4	0.48	0.0%
		Current Conditions minus Japanese Garden Discharge	72.7	0.46	-4.2%
	LA11	Current Conditions	80.0	1.01	0.0%
		Current Conditions minus Japanese Garden Discharge	73.3	0.98	-3.0%
	Elysian Valley	Current Conditions	80.0	2.03	0.0%
		Current Conditions minus Japanese Garden Discharge	73.3	1.94	-4.4%
1	Willow Ave	Current Conditions	125.3	1.34	0.0%
		Current Conditions minus Japanese Garden Discharge	118.6	1.30	-3.0%

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

No Impact. The proposed Project does not propose recreational facilities or the expansion of recreational facilities that might have an adverse physical effect on the environment. Implementation of the proposed Project would not result in an increased demand for parks or recreational facilities. No impact would occur in this regard.

4.19 Transportation (TRA)

This section evaluates the transportation and traffic impacts associated with construction and operation of the proposed Project.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

4.19.1 Environmental Setting

The proposed Project site is accessed via Woodley Avenue between Burbank Blvd. and Victory Blvd and is immediately north and west of the interchange between I-405 and US-101. Traffic counts on Woodley Ave by LA Department of Transportation indicates that vehicle counts ranged from 29,000 to 35,000 (LADOT 2020). Adjacent to the proposed Project site, I-405 and US-101 are classified as Congestion Management Program (CMP) freeways within Los Angeles County. Victory Blvd. is classified as a CMP principal arterial between Topanga Canyon Blvd. to the west and State Route 170 (also known as the Hollywood Freeway) to the east. Several bus lines operated by Metro service the proposed Project area. Numerous bike lanes and paths are present in the vicinity of the proposed Project site as well in the Sepulveda Basin Recreation Area. Pedestrian facilities serving the proposed Project site include sidewalks and crosswalks adjacent to onsite and offsite project components.

4.19.1 Regulatory Setting

The U.S. Department of Transportation is the primary federal department concerned with transportation regulation and consists of multiple agencies, including the FHWA, FTA, and Federal Motor Carrier Safety Administration. Federal transportation regulations are primarily found in CFR 23 and 49. Caltrans is the primary state agency responsible for implementing regulations on the state's highways and freeways. State regulations are primarily found in California's Streets and Highways Code and Vehicle Code and regulate many aspects of transportation such as truck operation and routes.

4.19.1.1 Los Angeles County Congestion Management Program

The Los Angeles County CMP was created statewide as a result of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (LA County

2010). The Los Angeles County CMP requires that the traffic impact of individual development projects of potential regional significance be analyzed.

4.19.2 Environmental Impacts

4.19.2.1 Significance Thresholds

The following significance criteria are informed by Appendix G of the CEQA Guidelines and the City's 2006 L.A. CEQA Thresholds Guide, which provide guidance for determining significance of impacts associated with transportation/traffic resulting from the Project. On July 30, 2019, the City Council per CEQA Guidelines Section 15064.7 approved the Los Angeles Department of Transportation (LADOT) Transportation Assessment Guidelines (LADOT Guidelines), which establishes guidelines for transportation assessment based on legislative and regulatory changes consistent with the VMT impact methodology, SB 743, and the revised 2018 CEQA Guidelines. In general, under the LADOT Guidelines, a transportation assessment is not required for the proposed Project since it is a land use project that would generate less than 250 daily trips.

TRA (a). Conflict with program, plan, ordinance or policy addressing the circulation system including transit, roadway, bicycle, and pedestrian facilities?

Less than Significant. As no development or changes in current operations are associated with the proposed Project, the proposed Project would not generate any traffic or result in any adverse effects on the traffic system. As such, the Project would have no potential to conflict with an applicable program, plan, ordinance, or policy establishing a measure of effectiveness for the performance of the circulation system.

TRA (b). Conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?

Less than Significant. The City of Los Angeles Department of Transportation (LADOT) developed a Vehicle Miles Traveled (VMT) calculator in May 2020, following adoption of Senate Bill 743 which requires that CEQA documents use VMT to evaluate the potential impacts to transportation systems from development projects. The accompanying guidance document (LADOT Transportation Assessment Guidelines [2020]) specifies that the VMT calculations are specifically designed and intended to be used to develop project-specific daily household VMT per capita and daily work VMT per employee for residential and office land use projects. As no development or changes in current operations are associated with the proposed Project, operation of the proposed Project would not generate any VMT, or result in any adverse effects on the traffic system. Construction activities would generate approximately a total of six haul trips and 30 worker vehicle trips, given the short duration of construction activity. Although the LADOT Transportation Assessment Guidelines (TAG) do not include screening criteria for VMT related to construction trips, the screening threshold of 250 daily vehicle trips as applicable to land use projects is applied for construction activity for a conservative analysis. Per the LADOT TOAG, the Project would not require any further assessment for inconsistency with VMT because the Project would not generate a net increase in 250 or more daily vehicle trips. Therefore, the Project is not expected to affect regional traffic facilities or result in excessive traffic on the primary ingress and egress to the Japanese Garden, Woodley Ave. Further, the proposed Project would not exceed the screening criteria detailed in Section 3.4.2 of the LADOT TAG which addresses activities associated with project construction and major in-street construction of infrastructure projects. Specifically, the Project

does not involve construction activities outside of the Japanese Garden DCTWRP property line and thus does not require construction activities within the right-of-way of any street, would not result in removal or loss of any on-street parking, and would not adversely affect existing pedestrian, bicycle, transit, or vehicle circulation. Therefore, the proposed Project would not conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b).

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

Less than Significant. As no development or changes in current DCTWRP facilities or operations are proposed by the proposed Project, it would not have the potential to increase hazards due to a design feature. Further, the proposed Project would not exceed the screening criteria of Threshold T-3 of the LADOT Transportation Guidelines related to hazards as the proposed Project does not propose new driveways, introduce new vehicle access to the property from the public right-of-way, or propose to make any modifications to the public right-of-way. Specifically, all construction and operations would occur entirely within the boundaries of the Japanese Garden with construction vehicles accessing the site through the existing entrance. As such, impacts would be less than significant.

TRA (d). Result in inadequate emergency access?

Less than Significant. The proposed Project would not result in any physical development or other changes to the proposed Project site or surrounding area such that emergency access would be reduced or otherwise adversely affected. During construction, the presence of construction-related traffic on adjacent roads may slow down emergency vehicles if there is not sufficient roadway shoulder to allow the construction vehicle to safely pull out of the lane to allow the emergency vehicle to pass. Although construction activities within the immediate vicinity of the proposed Project could temporarily block first responders to an emergency within the site, there are multiple alternative routes in the area that can be used for emergency access. Further, the proposed Project would not exceed the screening criteria of the LADOT Transportation Assessment Guidelines related to proposed Project construction. Specifically, proposed Project construction would not negatively affect existing vehicle circulation as the proposed Project does not involve construction activities outside of the Japanese Garden and DCTWRP property line. Therefore, the proposed Project would have a less-than-significant impact on emergency access.

4.20 Tribal Cultural Resources (TRI)

This section evaluates potential impacts of the proposed Project and alternatives on tribal cultural resources, which are defined in Public Resources Code Section 21074(a)(1-2) as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
  - Included or determined to be eligible for inclusion in the CRHR.
  - Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
  - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
  - A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
  - A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "non-unique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES.				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

4.20.1 Environmental Setting

Previous records searches were conducted as part of the Los Angeles Groundwater Replenishment Project EIR process (LADWP 2016). A search of the mapped Los Angeles Historic-Cultural Monuments and California Historic Landmarks did not identify any resources within a 0.5-mile radius of the DCTWRP (LADWP 2016). Letters were prepared and sent to the Native American Heritage Commission (NAHC) on October 21, 2013, July 20, 2015, and March 30, 2016. Based on the results of the records search and the Native American contact program, the proposed Project area may be culturally sensitive for prehistoric and/or historic archaeological resources. It is possible that archaeological resources could be buried beneath the ground surface, especially in areas where development has included only minimal ground disturbance (LADWP 2016).

4.20.2 Regulatory Setting

No Federal regulations related to tribal cultural resources apply to the proposed Project. Section 106 of the National Historic Preservation Act (NHPA) requires that every federal agency "take into account" how each of its undertakings could affect historic properties. Historic properties are districts, sites, buildings, structures, traditional cultural properties, and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register of Historic Places.

4.20.2.1 California Native American Heritage Commission

In 1976, the California State Government passed AB 4239, establishing the NAHC as the primary government agency responsible for identifying and cataloging Native American cultural resources. As such, one of the NAHC's primary duties, as stated in AB 4239, is to prevent irreparable damage to designated sacred sites, as well as prevent interference with the expression of Native American religion in California. Furthermore, the bill authorized the Commission to act in order to prevent damage to and insure Native American access to sacred sites. The Commission can request that the court issue an injunction for the site, unless it found evidence that public interest and necessity required otherwise. The Commission has authority to identify a Most Likely Descendant when Native American human remains are discovered any place other than a dedicated cemetery. Most Likely Descendants are granted the legal authority to make recommendations regarding the treatment and disposition of the discovered remains. These recommendations, although they cannot halt work on the proposed Project site, give Most Likely Descendants a means by which to ensure that the Native American human remains are treated in the appropriate manner (NAHC 2020).

4.20.2.2 City of Los Angeles General Plan Conservation Element

The Conservation Element of the Los Angeles General Plan references CEQA guidelines as they pertain to Native American cultural resources:

> *The CEQA provides guidelines for identification and protection of archaeological sites and artifacts as a part of local development permit processing. CEQA guidelines define an archaeological resource as "significant," i.e., to be protected if: (1) it is associated with an event or person of recognized significance to California or American history or of recognized scientific importance in pre-history, including culturally significant Native American sites;*

Additionally, the discovery of human remains requires evaluation by the county coroner of the nature of the remains and cause of death. If the remains are determined to be of Native American origin, the NAHC is asked to determine the descendants who are to be notified or, if unidentifiable, to establish procedures for burial (City of Los Angeles 2001).

4.20.3 Environmental Impacts

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

> ***TRI (a-i). Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or***
>
> ***TRI (a-ii). A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

Less than Significant. (TRI a-i, TRI a-ii). A previously conducted search of the mapped Los Angeles Historic-Cultural Monuments and California Historic Landmarks did not identify any resources within a 0.5-mile radius of the proposed Project area. Based on the results of the records search and the Native American contact program, the proposed Project area may be culturally sensitive for prehistoric and/or historic archaeological resources. However, the proposed Project would include construction activities requiring minor surface disturbance and excavation within existing DCTWRP facilities and operations. The area proposed for excavation has been previously disturbed and developed and no native soils would be encountered. Thus, its implementation would have minimal potential to physically affect Tribal Cultural Resources in the area. In the unlikely event that any human remains are found during excavation, the City would stop work per the standard conditions in Section 6-3.2, “Archaeological and Paleontological Discoveries” of the Standard Specifications for Public Works Construction (Greenbook), and the City of Los Angeles Department of Public Works Additions and Amendments to the Standard Specifications for Public Works Construction (Brownbook) and follow all applicable laws, including Public Resources Code section 5097.98.

Pursuant to Assembly Bill 52, the City notified Native American tribes as to the Project with a 30-day comment period. Letters were sent certified mail to all tribes identified by the Native American Heritage Commission in the Los Angeles County area on October 21, 2021. The Fernandeño Tatavian Band of Mission Indians responded that the proposed Project is situated within the traditional FTBMI ancestral territory. This area was used historically and prehistorically by local natives and is traditionally known as part of the FTBMI Village of Siutcanga. With the incorporation of the Project Design Feature described in Section 2.6, any potential impacts to tribal cultural resources would be less than significant.

4.21 Utilities and Service Systems (USS)

This section describes the existing conditions and applicable regulations for utilities and service systems in the proposed Project area and describes the impacts on utilities and service systems resulting from implementation of the proposed Project.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

4.21.1 Environmental Setting

4.21.1.1 Solid Waste

LASAN provides solid waste management services within the City. A breakdown of waste disposal for the year 2013 can be found within the 2013 Annual Report of the Countywide Integrated Waste Management Plan (LADWP 2016).

4.21.2 Regulatory Setting

No federal regulations are applicable to utilities and service systems associated with this project. Applicable California regulations include the Solid Waste Reuse and Recycling Access Act (Public Resources Code Sections 42900-42911) and the Integrated Waste Management Act (Public Resources Code Sections 41000-41460). The Board of Public Works is LASAN's oversight agency.

4.21.3 Environmental Impacts

USS (a). Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. Project implementation would not create water, wastewater, or drainage system capacity problems or require storm water drainage, electric power, natural gas, or telecommunications facility construction. As such, no impacts would occur.

USS (b). Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Impact. No new or expanded water entitlements would be required with implementation of the proposed Project. As such, no impacts would occur.

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

No Impact. The proposed Project would not require additional wastewater treatment capacity or new or expanded facilities. As such, implementation of the proposed Project would not impact the treatment capacity of the wastewater treatment facilities serving the proposed Project area.

USS (d). Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Impact. As the proposed Project's proposed construction activities and changes in the current facilities at the existing DCTWRP are minor (addition of a new valve within the Japanese Garden's outlet area and buried pipeline between the Japanese Garden and DCTWRP), implementation of the proposed Project would not generate additional significant demands for solid waste disposal. No impact would occur in this regard.

USS (e). Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. Minimal waste will be produced as all excavated native material will be stockpiled and used for backfill once the installation of the diversion pipeline is completed. Thus, no impact would occur in this regard.

4.22 Wildfire (WFR)

This section describes the existing conditions and applicable regulations pertaining to wildfires in the proposed Project area and describes the impacts associated with wildfires that could result from implementation of the proposed Project.

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

4.22.1 Environmental Setting

The California Department of Forestry and Fire Protection's Fire Resource and Assessment Program provides Fire Hazard Severity Zone maps showing the severity of the threat of wildfires and the designation of responsibility for fire protection. Based on the Fire Hazard Severity Zone map for Los Angeles County, DCTWRP is located within an urbanized/developed area and is outside of designated fire hazard severity zones (LADWP 2016). However, multiple brush fires have occurred within or near the Sepulveda Basin Wildlife Reserve directly adjacent to DCTWRP over the last 5 years, including a 5-acre brush fire in August 2015 (LA Daily News 2015), 30-acre brush fire in October 2019 (LA Times 2019), 4-acre brush fire in June 2020 9 (CBS LA 2020), and 20-acre brush fire in September 2020 (LA Daily News 2020). According to the City's General Plan Safety Element, Exhibit D, Selected Wildfire Hazard Areas, the southwest portion of the Sepulveda Basin Recreation Area adjacent to US-101 is located within a Selected Wildland Fire Hazard area. The Wildlife Reserve and DCTWRP are located within urbanized/developed areas and are outside of designated fire hazard severity zones but are surrounded by natural gas transmission lines (LA City 1996).

The Los Angeles Fire Department provides fire protection services for the city of Los Angeles. The proposed Project area is located within the San Fernando Valley, which is served by the Operations Valley Bureau. The fire stations listed in Table 4.15-1 are located near the proposed Project area.

Table 4.15-1. Existing Fire Stations near the D.C. Tillman Wastewater Treatment Plant.

Fire Station #	Address	Equipment/Personnel
88	5101 N. Sepulveda Boulevard, Sherman Oaks, CA 91403	Task Force, Advances Life Support (ALS) Ambulance, Urban Search and Rescue, Division Chief, and Emergency Medical Valley Bureau Commander and Deputy Chief Services (EMS) Captain/16 fulltime firefighters
90	7921 Woodley Avenue, Van Nuys, CA 91406	Task Force and ALS Ambulance/11 firefighters
100	6751 Louise Avenue, Van Nuys, CA 91406	Engine and ALS Ambulance/6 firefighters

Source: LADWP 2016

4.22.2 Regulatory Setting

4.22.2.1 United States Department of Interior: Office of Wildland Fire

The Department of the Interior is organized into ten bureaus and dozens of smaller offices, including the Office of Wildland Fire. On behalf of the Secretary of the Interior, the Office of Wildland Fire oversees a Wildland Fire Management Program spanning multiple bureaus that manage over 535 million acres of public and Tribal lands: including the Bureau of Indian Affairs, the Bureau of Land Management, the National Park Service, and the USFWS. The Department of Interior is appropriated funds from Congress for the implementation of a suite of activities that make up the Wildland Fire Management Program, including preparedness, suppression, fuels management, facilities, burned area rehabilitation, and science. Each program spans a range of tasks and receives specific funding through an annual budget justification. The Interior Fire Executive Council, the Wildland Fire Leadership Council, and many other groups collaborate to establish program goals and priorities (DOI 2020a).

4.22.2.2 Executive Order 13855 Promoting Active Management of America's Forests, Rangelands, and Other Federal Lands to Improve Conditions and Reduce Wildfire Risk

In response to the deadly wildfires of 2017 and 2018, President Trump signed Executive Order 13855 calling for federal land managers to improve conditions and reduce wildfire risk through active management of their lands. Executive Order 13855 emphasizes that federal agencies must collaborate with state and local institutions and incorporate active management principles into all land management planning efforts in order to address the challenges of wildland fire.

Section 5 of the executive order directs the Secretaries of Interior and Agriculture to jointly develop a Wildfire Strategy in collaboration with Federal, State, tribal, and local partners, by December 31, 2020, that supports local Federal land managers in project decision-making and informs local fire management decisions related to forests, rangelands, and other Federal lands, thereby protecting habitats and communities, and reducing risks to physical infrastructure (DOI 2020b).

4.22.2.3 California Department of Forestry and Fire Protection

Preventing wildfires in the State Responsibility Area is a vital part of California Department of Forestry and Fire Protection's (CAL FIRE) mission. While these efforts have occurred since the early days of the

Department, CAL FIRE has adapted to the evolving destructive wildfires and succeeded in significantly increasing its efforts in fire prevention. The Department's Fire Prevention Program consists of multiple activities including wildland pre-fire engineering, vegetation management, fire planning, education and law enforcement. Typical fire prevention projects include brush clearance, prescribed fire, defensible space inspections, emergency evacuation planning, fire prevention education, fire hazard severity mapping, and fire-related law enforcement activities (CAL FIRE 2020a).

4.22.2.4 Public Resources Code 4291

California PRC 4291 states that property owners within State Responsibility Areas are responsible for ensuring that their property is in compliance with California's building and fire codes that call for homeowners to take proactive steps to protect their property from a wildfire. The law requires that homeowners in State Responsibility Areas clear out flammable materials such as brush or vegetation around their buildings to 100 feet (or the property line) to create a defensible space buffer. This helps halt the progress of an approaching wildfire and keeps firefighters safe while they defend the property (CAL FIRE 2020b).

4.22.2.5 California Code of Regulations Title 14

CCR Title 14 states that future design and construction of structures and developments in State Responsibility Area shall provide for basic emergency access and perimeter wildfire protection measures, including private water supply reserves for emergency fire use and vegetation modification (CAL FIRE 2020b).

4.22.2.6 Brush Clearance Inspection Program

The Brush Clearance Program is a joint effort between the County of Los Angeles Fire Department and the County of Los Angeles Department of Agricultural Commissioner/Weights and Measures, Weed Hazard and Pest Abatement Bureau (Weed Abatement Division). This unified enforcement legally declares both improved and unimproved properties a public nuisance, and where necessary, requires the clearance of hazardous vegetation.

These measures create "Defensible Space" for effective fire protection of property, life and the environment. The Department's Brush Clearance Unit enforces the Fire Codes as it relates to brush clearance on improved parcels, coordinates inspections and compliance efforts with fire station personnel, and provides annual brush clearance training to fire station personnel (LAFD 2020).

4.22.3 Environmental Impacts

WFR (a). Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. Based on the Fire Hazard Severity Zone map for Los Angeles County the City's General Plan Safety Element, Exhibit D, Selected Wildfire Hazard Areas, the Wildlife Reserve and DCTWRP are located within an urbanized/developed area and are outside of designated fire hazard severity zones but are surrounded by natural gas transmission lines.

The I-405 and US-101 freeways are designated disaster routes that lie adjacent to the proposed Project site. Project implementation would not require the use of I-405 or US-101 freeways, therefore the

proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Thus, no impacts would occur in this regard.

WFR (b). Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than Significant. The proposed Project area is not located near slopes, susceptible to prevailing winds, or vulnerable to other factors that would exacerbate wildfire risks, and thereby expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. However, construction activities associated with implementation of the proposed Project carry the unlikely potential to release a spark that could induce a fire in nearby brush and lead to the uncontrolled spread of a wildfire. Thus, impacts are considered less than significant.

WFR (c). Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. Construction activities associated with the proposed Project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities). Thus, no impacts would occur in this regard.

WFR (d). Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The proposed Project is not located in an area susceptible to landslides, including downslope or downstream flooding as the geography of the DCTWRP is relatively flat. Thus, no impacts would occur in this regard.

SECTION 5 Cumulative Impacts

According to Section 15355 of the CEQA Guidelines, cumulative impacts refer to:

> *Two or more individual effects which, when considered together are considerable or which compound or increase other environmental effects. The individual effects may be changes resulting from a single Project or a number of separate Projects. The cumulative impact from several Projects is the change in the environment that results from the incremental impact of the Project when added to other closely related past, present, and reasonably foreseeable future Projects. Cumulative impacts can result from individually minor but collectively significant Projects taking place over a period of time.*

Section 15130(a) of the CEQA Guidelines states that:

> *An EIR shall discuss cumulative impacts of a Project when the Project's incremental effect is cumulatively considerable... When the combined cumulative impact associated with the Project's incremental effect and the effects of other Projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR… An EIR may determine that a Project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A Project's contribution is less than cumulatively considerable if the Project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.*

Although an analysis of cumulative effects is not a requirement of an Initial Study, the City determined that evaluating the potential cumulative effects is relevant to the overall evaluation and consideration of the proposed Project. Therefore, this Initial Study analyzes the potential cumulative environmental impacts associated with the City's proposed reduction of recycled wastewater discharges into the Los Angeles River and together with all other projects that may similarly affect flows into the Los Angeles River. At the time of preparation of this Initial Study, the cumulative impacts section of this report was prepared using publicly available information obtained from the SWRCB's website of all pending wastewater change petitions, and the State Clearinghouse for all proposed projects potentially affecting the Los Angeles River, as well as consideration of recent City plans and policies related to the Los Angeles River and planned or proposed activities at the DCTWRP. The analysis also includes consideration of other ongoing or potential future projects that could affect the Los Angeles River. No other future or proposed projects besides those discussed below were identified that are required to be included in the cumulative impacts analysis for the proposed Project.

5.1 Projects Considered in this Cumulative Effects Analysis

The cumulative impact assessment uses the quantitative tools developed in the *Los Angeles River Environmental Flows* Project, and completed in May 2021, by the Southern California Coastal Watershed Research Program (SCCWRP, the study cited as Stein et al. 2021a). The SWRCB, in coordination with the City, the Los Angeles County Department of Public Works and the Los Angeles County Sanitation Districts, initiated the *Los Angeles River Environmental Flows Project* to provide a toolset to evaluate a

series of flow reduction scenarios for the Los Angeles River as various municipalities consider beneficial reuse options of treated wastewater and stormwater that would reduce flows in the Los Angeles River. For this analysis of cumulative impacts, the native numerical models developed by SCCWRP for the Flows Study were obtained and used to model the proposed Project-related flow reduction, and cumulative flow reductions. In addition, the illustrative examples of potential impacts to biological resources and recreational resources were also consulted in the impact analysis of the proposed Project and cumulative impacts for this Initial Study. Therefore, the focus of this cumulative effects analysis is on potential effects related to cumulative changes to flows in the Los Angeles River.

5.1.1 Glendale Wastewater Change Petition

The City of Glendale has authorization to reduce its wastewater discharges from the Los Angeles-Glendale Water Reclamation Plant to the Los Angeles River to support increased application of recycled water in the Glendale Water & Power and Pasadena Water & Power service areas, construction and operation of three new recycled water distribution pipelines and associated pump stations within the City of Glendale, and a pipeline connection to Pasadena's recycled water distribution system (City of Glendale 2018).

The Los Angeles Glendale Water Reclamation Plant discharges directly into the Los Angeles River just upstream of the Glendale Narrows reach of the River. The City of Glendale has authorization to reduce discharges to the Los Angeles River by 3,500 acre-feet per year, which would equate to an average reduction of 3.07 million gallons per day. Reductions in discharge would be greater in summer months and lower in winter months. Table 5.1-1 below shows the existing and proposed change in discharges from the Los Angeles Glendale Water Reclamation Plant. An IS/MND for the project was adopted in 2018, which determined that implementation of the project would result in less than significant impact or no impact to all resource areas except for biological resources, cultural resources, and noise, which were considered less than significant with mitigation incorporated.

Table 5.1-1. Existing and Proposed Los Angeles Glendale Water Reclamation Plant Discharges

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual
Present	11.89	10.19	10.24	8.79	8.04	7.37	7.12	8.08	9.03	9.49	9.88	11.20	10,500
Proposed	10.98	8.97	8.78	5.91	4.07	2.44	1.27	2.85	4.70	6.49	7.87	10.15	7,000
Change	0.91	1.22	1.46	2.88	3.97	4.93	5.85	5.23	4.33	3.00	2.01	1.05	3,500

Notes: Monthly discharges in million gallons per day. Annual discharge is acre-feet per year.

Source: City of Glendale 2018

5.1.2 Burbank Wastewater Change Petition

The City of Burbank has authorization to reduce its discharges of tertiary-treated wastewater from the Burbank Water Reclamation Plant to the Burbank Western Channel, and has begun reducing flows to the Los Angeles River. The plant is located approximately two miles upstream from and tributary to the Los Angeles River, in order to allow for increased use of recycled water for irrigation and other non-potable uses within the Burbank Water & Power service area and adjacent jurisdictions. As a result of increased demand for recycled water within the Upper Los Angeles River Area, the City of Burbank has

authorization to gradually increase its use of recycled water (2,705 AF to 5,027 AF), thereby reducing its discharge of treated wastewater into the channel over the next 10 years from 5,376 AF to approximately 3,766 AF. The proposed discharge reductions would occur incrementally over time, with maximum reductions proposed by the year 2026 (City of Burbank 2017). According to the results of the Hydraulic Modeling Reports prepared for the proposed Project in March and August 2017, the proposed reductions in flow to the Los Angeles River as a result of increased reuse of wastewater from the Burbank Wastewater Reclamation Plant constitute a four percent (4%) reduction in baseline 2016 dry season flow, and a two percent (2%) reduction in long-term dry season flow downstream of Sepulveda Dam. The hydraulic model results show that under proposed project conditions the average velocity within the entire study area would be slightly reduced, from 1.38 to 1.36 feet/sec (-1.4%) under the 2016 baseline dry season flow, and that average depth in the deepest part of the channel would be slightly reduced from 0.65 to 0.64 feet (-1.3%). The proposed Project would slightly reduce the total wetted area of channel from 132.89 to 132.20 acres (0.69 acres, -0.5% of existing condition) during the 2016 dry season baseline condition. As indicated therein, 26% of the reduction in wetted area occurs on concrete banks or bed and 74% on soft channel materials, so the reduction in wetted earthen channel is 0.51 acres or 0.39% of the existing wetted channel area. During long-term average dry season conditions, the average velocity under the proposed Project condition would be reduced from 1.83 to 1.82 feet/sec (-0.6%), the average depth in the deepest part of the channel reduced from 0.92 to 0.92 feet (-0.6%) and total wetted area from 150.74 to 150.49 acres (0.25 acres, -0.2% of existing conditions). The proportion of natural channel affected by the reduction in wetted area is 58% for the long-term average summer condition, so 0.15 acres of earthen channel are dewatered by the proposed flow condition. An IS/MND for the project was adopted in 2017, which determined that implementation of its project would result in less than significant impact or no impact to all resource areas.

5.2 Other Identified Projects Not Fully Analyzed in this Cumulative Effects Analysis

Other projects were identified that were recently completed, are currently underway, or could reasonably occur in the future but are not fully analyzed in this cumulative effects analysis. Provided below are brief descriptions of each of these projects and the reason for excluding the project from full analysis.

5.2.1 Sustainable City pLAn

The 2019 Sustainable City pLAn sets goals for the City in regard to energy, infrastructure, and water in accordance with the Mayor of Los Angeles, Green New Deal program. With regard to stormwater flows and flows into the Los Angeles River, the pLAn sets a goal of captures 150,000 acre-feet of stormwater per year by 2035, with an interim goal of 75,000 acre-feet of capture by 2021. Proposed stormwater capture projects include green infrastructure sites (e.g., green streets and alleys, bioswales, infiltration cut-outs, permeable pavement and street trees), as well as incentives to increase residential and commercial stormwater capture (City of Los Angeles 2019). An outcome of the pLAn will be reduced discharge of stormwater flows into the Los Angeles River and according to the first-year data snapshot published in 2020, the City is on track to meet its short-term goal in 2021 (City of Los Angeles 2020). However, implementation of the pLAn would result in reductions in stormwater City-wide stretching the

entire length of the Los Angeles River and all tributaries. Therefore, it is speculative what the specific changes would be to the reaches below the Sepulveda Dam and effects would also be highly dependent on year-to-year changes in precipitation. Therefore, changes in flow that might occur under implementation of the pLAn are not included in the hydraulic model conducted for this proposed Project.

5.2.2 Low Impact Development Ordinance

In November 2011, the City adopted the Stormwater Low Impact Development (LID) Ordinance (Ordinance #181899, updated September 2015 (Ordinance #183833) with the stated purpose of:

- Requiring the use of LID standards and practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reducing stormwater/urban runoff while improving water quality;
- Promoting rainwater harvesting;
- Reducing offsite runoff and providing increased groundwater recharge;
- Reducing erosion and hydrologic impacts downstream; and
- Enhancing the recreational and aesthetic values in our communities.

In 2012, the Los Angeles RWQCB adopted Order No. RA-2012-0175 the NPDES Stormwater Permit (Permit) for the County of Los Angeles and cities within (NPDES No. CAS004001). This permit also adopts LID principals and requires development and redevelopment projects to incorporate similar requirements as those outlined in the City's LID Ordinance. The Stormwater LID Ordinance requires LID measures be incorporated into the design of all development and redevelopment projects that have a land disturbance activity and add, create or replace 500 square feet or more of impervious area. Stormwater mitigation measures are required for all projects subject to the LID Plan. City projects must incorporate required stormwater mitigation measures as part of their implementation. Public agency projects other than from the City, such as State of California, the County of Los Angeles, and the Metropolitan Transit Authority that require a permit from the City are required to prepare a Low-Impact Development Plan and implement stormwater mitigation measures. In addition, non-roadway transportation projects that meet the thresholds for LID categories are also required to implement stormwater mitigation measures. Examples of such projects include the rail lines and stations, airport runways, and busways. Such projects must incorporate stormwater BMPs into their design plans and specifications, which must be submitted for review and approval. The most recent version of the City's Low-Impact Development Handbook was published May 9, 2016. The effect of the LID Ordinance and BMPs is to reduce stormwater run-off and increase groundwater capture, which ultimately reduces stormwater flows into the Los Angeles River and associated tributaries. Since the LID Ordinance has been in effect since 2012, the changes in flow which may have resulted from its implementation are captured in the baseline flow measurements for the Los Angeles River. Therefore, the analysis of the proposed Project considers the potential effects of the proposed Project changes in flow to baseline levels, which are representative of flows with the LID Ordinance in effect and no additional analysis is provided.

5.2.3 Stormwater Capture Parks Program

LADWP, Department of Public Works, LASAN, and Department of Parks and Recreation, collectively referred to as the City of Los Angeles, published an IS/MND in January 2021 for the Stormwater Capture Parks Program (LADWP 2021) and issued a Notice of Determination approving the project on November 16, 2021 (SCH 2021010053). The Program includes construction of stormwater capture facilities at nine City-owned parks to help capture surface flow and divert stormwater runoff from the Tujunga Wash Central Branch storm drain to recharge the San Fernando Groundwater Basin. The nine parks that are included in the Program are all located in the San Fernando Valley, along State Route 170. These include: David M. Gonzales Recreation Center, Fernangeles Park, Strathern Park North, Whitsett Fields Park North, Valley Plaza Park North, Valley Plaza Park South, Alexandria Park, North Hollywood Park, and Valley Village Park. Implementation of the program will meet goals set forth in the Sustainable City pLAn (described in Section 5.2.1), the 2015 UWMP, LADWP's Stormwater Capture Master Plan, and the Upper Los Angeles River Enhanced Watershed Master Plan. With implementation at all nine parks, the Program would have the capacity to divert up to 3,010 AFY per year of dry weather flows and stormwater flows from the Tujunga Wash. The actual amount of stormwater diverted each year is speculative and would change year-to-year dependent on annual precipitation. In particular the volume of dry weather flows diverted is speculative because stormwater is rare in dry weather. It is anticipated that the largest volume of flows that may be diverted would be wet weather flows, which do not overlap with the impacts of this Project which are primarily during dry weather conditions. Therefore, changes in flow that might occur under implementation of the Program are not included in the hydraulic model conducted for this proposed Project.

5.2.4 Los Angeles River Master Plan

The Los Angeles County Department of Public Works published a 2020 Los Angeles River Master Plan that describes a vision for the Los Angeles River to become 51 miles of connected public open space that provides landmark opportunities to reduce flood risk and improve resiliency, support healthy and connected ecosystems, address potential adverse impacts to housing affordability and people experiencing homelessness, promote healthy, safe clean water, and create jobs while fostering opportunities for arts, culture, and community engagement. This plan would update the 2017 Los Angeles River Revitalization Master Plan. The Los Angeles River Master Plan study area includes the entire 51-mile length of the Los Angeles River and covers 18 different jurisdictions.

Specifically, Los Angeles County's 2020 Los Angeles River Master Plan identifies opportunities for the following:

- Over 200 potential project sites that will create local jobs.
- Thousands of acres of publicly accessible open space that will help address public health issues, especially in the most disadvantaged communities.
- Innovative multi-benefit projects that assist in mitigating future disasters, such as flooding, drought, and extreme heat events, while enhancing ecosystem function.
- Actions for affordable housing and homelessness, a key initiative to address displacement in areas vulnerable to gentrification.

- A framework for future community engagement to influence projects built under the plan.

The Los Angeles River Master Plan is currently under CEQA review and implementation of any of the projects identified in the plan are still considered speculative. Therefore, these projects are not addressed within the cumulative effects analysis.

5.2.5 DCTWRP Capital Improvements

The 2019 DCTWRP IS/MND Project involved the issuance of a new easement, which included the raising of existing dikes to meet flood protection requirements, as well as a suite of components that would be undertaken to update plant facilities, such as the construction of a Multi-Purpose Building in service to the Japanese Garden needs and two capital improvement projects to improve sewer service and flow-metering in maintenance vaults within the Plant grounds (LASAN 2019a). The 2019 DCTWRP IS/MND document determined that implementation of its project would result in less than significant impact or no impact to all resource areas except for Biological Resources, Cultural resources, Hazards and Hazardous Materials, Hydrology and Water Quality, and Transportation and Circulation, which were considered less than significant with mitigation incorporated. The proposed DCTWRP capital improvements project will be completed in 2021, well before implementation of the proposed Project. Therefore, there are no potential for cumulative effects to occur related to the construction activity (i.e., noise, traffic, or air emissions).

5.2.6 2019 LASAN East West Valley Interceptor Sewer Project

The 2019 LASAN East West Valley Interceptor Sewer Project Draft EIR includes the construction of a new force main sewer and six diversion structures, one junction structure, and six pumping stations to divert wastewater from existing sewers in the North Hollywood area, and convey that wastewater to the west for treatment at DCTWRP. The project will also include ancillary components, such as access structures, electrical vaults, and control boxes. Construction of the project will utilize several construction methods, including open cut, open pit methods, and trenchless methods such as microtunneling or jack and bore. The primary purpose of this project is to increase the production and use of recycled water in the City to help address concerns over the long-term reliability of imported water. The project would divert and convey wastewater from the eastern portions of the San Fernando Valley to the DCTWRP, where it would be used to generate recycled water that would be distributed through the existing recycled water distribution system that extends from DCTWRP. Operation of the project would be automated and located underground, with only control panel boxes at pump stations located above ground. The proposed Project components would be operated as a closed system with minimal maintenance required. The Draft EIR identifies potentially significant and unavoidable impacts during construction, even with mitigation, associated with air quality, cultural and tribal resources, noise and vibration, transportation and traffic. All other impacts were determined to mitigatable or less than significant (LASAN 2019b). The LASAN East West Valley Interceptor Sewer Project will be completed in 2021, well before implementation of the proposed Project, and construction activity would be located over five miles east of the DCTWRP. Therefore, there are no potential for cumulative effects to occur related to the construction activity (i.e., noise, traffic, or air emissions).

5.2.7 DCTWRP AVORS and EVIS Gates Replacement Project

The DCTWRP AVORS and EVIS Gates Replacement project involves the removal and replacement of the sluice gates at the Additional Valley Outfall Relief Sewer and East Valley Interceptor Sewer diversion structures as well as the influent channel Phase 1 and Phase 2 isolation gates at DCTWRP. These gates show signs of heavy damage and corrosion. These gates must be in working condition to function properly to divert and/or isolate the plant during shut down. Given the life expectancy of the replaced equipment, project timing, and minimal alteration of facilities associated with the project, cumulative impacts and significant environmental effects resulting from this project are not anticipated to occur. This project falls under Class 1 (15301 (b)) and Class 2 (15302 (c)) exemptions under CEQA as well as Class 1, Category 2 and Class 2, Category 5 exemptions of the CEQA Guidelines. The project involves the repair and replacement of diversion/isolation structures used in the treatment of sewage within an existing facility with no expansion of use or capacity than existing at the time of the project. None of the limitations set forth in State CEQA Guidelines 15300.2 apply. A Notice of Exemption for this project was granted by the City in 2018 (LADPW 2018a). The AVORS and EVIS Gates Replacement project will be completed in 2021, well before implementation of the proposed Project. Therefore, there are no potential for cumulative effects to occur related to the construction activity (i.e., noise, traffic, or air emissions).

5.2.8 DCTWRP Screw Pumps Inlet Gates Project

The DCTWRP Screw Pumps Inlet Gates project consists of removing eight screw pump inlet sluice gates and actuators located at the lower level of the Headworks Facility, making necessary repairs to the concrete and liner of the channel, and installing eight cover plates with Type A Stainless Steel cover plates. It is anticipated that the existing electrical and instrumentation conduits, wires and connections will be reused and existing control logic will be maintained. The improvements will upgrade old equipment that appears to be in poor condition and thereby improving operation reliability and future maintenance. Given the life expectancy of the replaced equipment, project timing, and minimal alteration of facilities associated with the project, cumulative impacts and significant environmental effects resulting from this project are not anticipated to occur. This project falls under Class 1 (15301 (b)) and Class 2 (15302 (c)) exemptions under CEQA as well as Class 1, Category 2 and Class 2, Category 3 exemptions of the CEQA Guidelines. The project involves the rehabilitation of existing facilities within the DCTWRP, with no expansion of use or capacity than existing at the time of the project. None of the limitations set forth in State CEQA Guidelines 15300.2 apply. A Notice of Exemption for this project was granted by the City in 2018 (LADPW 2018b). The Screw Pumps and Inlet Gate project will be completed in 2021, well before implementation of the proposed Project. Therefore, there are no potential for cumulative effects to occur related to the construction activity (i.e., noise, traffic, or air emissions).

5.3 Methodology for Evaluating Cumulative Effects

Since the analysis focuses on the potential effects of cumulative changes to flows into the Los Angeles River (the proposed Project plus changes resulting from the Glendale and Burbank Wastewater Treatment Plants), the City coordinated closely with the SCCWRP *Los Angeles River Environmental Flows Project* which identified tools for evaluating flow management scenarios and the potential effects on recreational beneficial uses and aquatic habitat. In addition, the City used the hydraulic model created

by SCCWRP (HEC RAS) and adjusted the calibrated and validated model for actual flows in the Los Angeles River to evaluate the potential effects. Descriptions of the SCCWRP *Environmental Flows Project* and the proposed Project-specific hydraulic modeling that was conducted are described in detail below.

5.3.1 Southern California Coastal Watershed Research Los Angeles River *Environmental Flows Project*

The SWRCB, in coordination with LASAN, LADWP, the Los Angeles County Department of Public Works and Los Angeles County Sanitation Districts, initiated the *Los Angeles River Environmental Flows Project* to create a toolset to evaluate a series of flow reduction scenarios for the Los Angeles River (Stein et al. 2021a). This project was conducted by scientists and analysts at the SCCWRP and the Colorado School of Mines. The toolkit will be used to inform development of proposed flow management scenarios that likely would sustain specific species, habitats, and beneficial uses throughout the watershed. This toolkit may also support policy development on balancing the need for local water supply and supporting beneficial uses. In the near term, the outcomes of the SCCWRP Flow Study can inform decisions associated with proposed wastewater change petitions and stormwater management programs.

The intent of the SCCWRP Flow Study was to provide additional information on whether proposed management actions would influence flow conditions that could potentially support beneficial uses, recognizing that there are many other factors that currently affect the ability to support these uses (e.g., channelization, lack of vegetative cover, lack of suitable substrate, mechanical channel maintenance). The SCCWRP Flow Study provides a process for evaluating flow regime changes; applies the process to illustrate potential changes to recreational beneficial uses and aquatic habitat; and is a tool that can be used to assist decisions on these changes. The analysis is based on existing channel geometry and existing substrate, vegetation, and channel roughness with a focus on changes to flow.

Flow evaluations in the *Los Angeles River Environmental Flows Study* were conducted by coupling hydrologic, hydraulic and temperature modeling with a series of ecological response models. Hydrologic, hydraulic, temperature, and water quality models were created for the Los Angeles River Basin. Ecological response models were created for key species in six identified habitat types within the banks of the channel using data from the Los Angeles River and other similar river systems in the region. The models were coupled using functional flow metrics to assess probability of species occurrence under different management scenarios (Figure 5.3-1). Further details on the modeling approach and development are provided in Stein et al. (2021a).

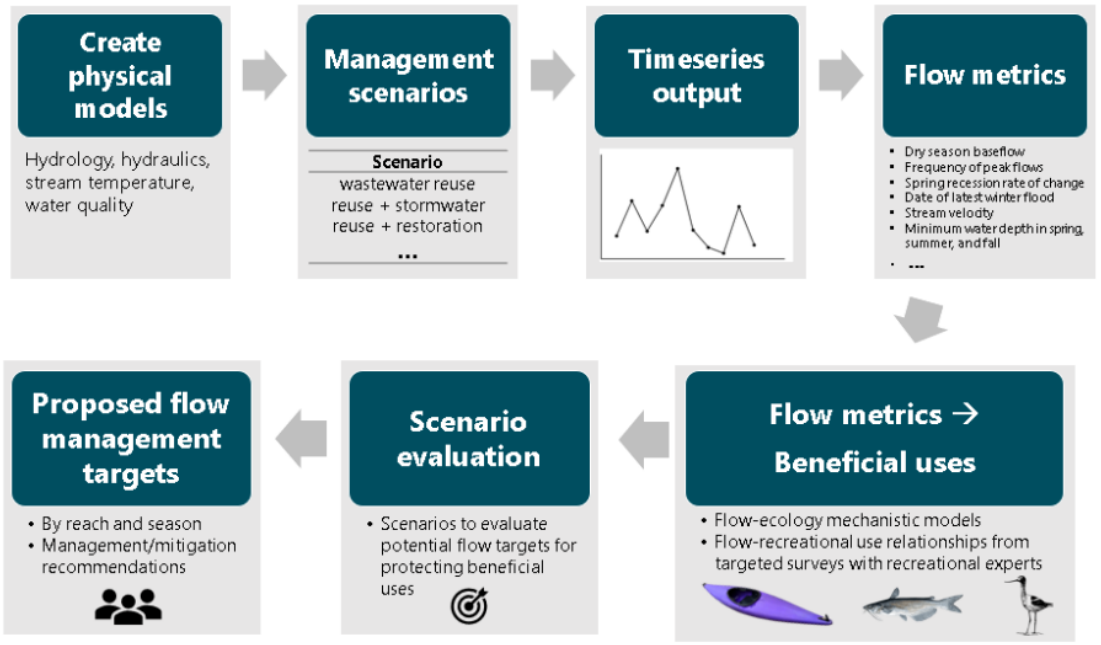

Figure 5.3-1. Process used to model environmental flows in the Los Angeles River (from Stein et al. 2021a).

The study area for the hydraulic model extends from the DCTWRP to Willow Street, just upstream of the tidally influenced reach and only includes the mainstem Los Angeles River, not any adjoining tributaries. Figure 5.3-2 shows the Los Angeles River Watershed and the specific reaches where flow was modeled. In order to evaluate the scenarios with the greatest potential for impacts, the hydraulic model was run using the month with the highest monthly mean daily flow (January), the month with the lowest monthly mean daily flow (April) and the month with the lowest average monthly mean daily flow (August) over the analyzed period between January 2008 and June 2019.

To estimate current flow condition in the study area, Stein et al. (2021a) used a coupled hydrologic-hydraulic model created in EPA SWMM and HEC-RAS. Current hydrologic conditions were defined as the flows and operations that occurred during water year (WY) 2011 to 2017 as measured in the field. This period was chosen because high-resolution data was available for wastewater discharge, in-stream flows, dam operations, and spreading grounds, and the wastewater discharge during this period remained relatively constant. The hydrologic model produces discharge on the mainstem of the Los Angeles River, Compton Creek, and Rio Hondo at an hourly time step from WY 2011 to 2017. The model was calibrated from WY 2014 to 2017 and validated from WY 2011 to 2013 at seven locations throughout the watershed (4 on the mainstem, 3 on tributaries) by comparing daily discharge values. The hydraulic model was created for a subset of this spatial domain — the mainstem of the Los Angeles River from Sepulveda Basin to the outlet to the harbor, and for Compton Creek and Rio Hondo.

The hydraulic model was created by combining existing HEC-RAS models for the river and updating channel geometry and Manning's roughness based on field observations. The hydraulic model was run under steady state conditions, which were used to develop rating curves to apply to the simulated hydrographs, producing time series hydraulic data for velocity, channel depth, and shear stress. The final SWMM model comprises 77 catchments, and 78 channels and nodes. The final HEC-RAS model contains over 1,600 cross sections. The coupled hydrologic-hydraulic model was used as a base for the

temperature model, created in i-Tree Cool River and the water quality model, created using USEPA SWMM. All models were calibrated and validated using local data sources from a variety of ongoing monitoring programs (Stein et al. 2021a).

The model simulated potential changes to wastewater discharge, stormwater management, and dry weather storm drain discharge using a "sensitivity curve" approach that relates potential changes in discharge to changes in instream flow conditions based on functional flow metrics. Wastewater discharge scenarios were based on a Monte Carlo simulation which evaluated the effects of 500 randomly selected scenarios ranging from 0-100% of current discharge, representing multiple combinations of potential water reclamation plant discharge reductions from each plant. These scenarios were not specific to the proposed Project. Sensitivity curves for stormwater management and dry weather storm drain scenarios were simulated using a series of discrete scenarios representing a range of implementation of BMPs. Ranges of BMP implementation scenarios were derived from the City of Los Angeles Stormwater Capture Master Plan (SCMP), and the watershed management program plans for the Upper and Lower Los Angeles River, Los Angeles River Upper Reach 2, and Rio Hondo/San Gabriel River.

A total of 66 flow-based sensitivity curves were developed for 13 reporting nodes, two seasonal functional flow components (wet-season baseflow and dry-season baseflow), and for multiple management scenarios (water reclamation plant discharge and dry weather storm drain discharge scenarios). Sensitivity curves were only developed for the wet- and dry-season baseflow magnitude metrics because they were the most sensitive flow metrics to changes in water reclamation plant discharge and dry weather storm drain reductions. A process was developed to use flow ranges associated with different scenarios with the sensitivity curves to evaluate how much and under which scenarios flows can be reduced.

The model was then used to conduct an aquatic life beneficial use assessment (which is discussed in detail in Sections 5.4.4 and 4.4) and evaluate flow targets for recreational beneficial uses (discussed in Section 4.16 and 5.4.16).

To relate changes in hydrology to changes in aquatic habitat, the study determined the flow conditions likely necessary to support the life history needs of each end member species using readily available species and habitat data from a variety of sources including literature, surveys in the Los Angeles River and other similar watersheds and species/habitat databases. These relationships were used to create "flow-ecology" curves or models relating key hydrologic, hydraulic, and temperature conditions to the probability of occurrence for each focal species life stage at each reporting node. The flow-ecology curves were then used to identify flow ranges likely to support each focal species for different life stages at different habitat locations in the river and time periods associated with certain life history phases such as breeding or growth. Critical life stages and habitat requirements were identified in coordination with the *Los Angeles River Environmental Flows Project* Technical Advisory Committee and used to develop a series of example flow scenarios for each reporting node in the study area. Given the channelized nature and predominantly concrete substrate of the Los Angeles River, there are limited opportunities to modify flows in a way that reduces suitability for invasive species while still providing sufficient flows for native species. Therefore, the flows study did not provide flow recommendations aimed at reducing habitat for invasive warm water species. (Stein et al. 2021a).

The study notes that caution must be used when interpreting and making decisions about flow ranges for some species and reaches given the limitations of applying a one-dimensional hydraulic model using existing channel morphology compared to a two-dimensional, spatially continuous model. In the concrete reaches, there are strengths in using a one-dimensional model of current morphology as there will be minimal changes to the morphology in the future, unless channel modifications or restoration actions are performed. However, there may be model limitations in the soft-bottom reaches, given that there will be changes to the morphology and those morphologic changes will be influenced by the flow regime and will in turn impact hydraulics. In addition, the ecological model was built from a combination of data from Los Angeles River and other watersheds, which introduce some uncertainty in interpretation of the model results. (Stein et al. 2021a). Therefore, the study is used as an analytical tool, to which we applied our knowledge of river conditions as well as proposed Project-specific modeling using the HEC-RAS model obtained from SCCWRP.

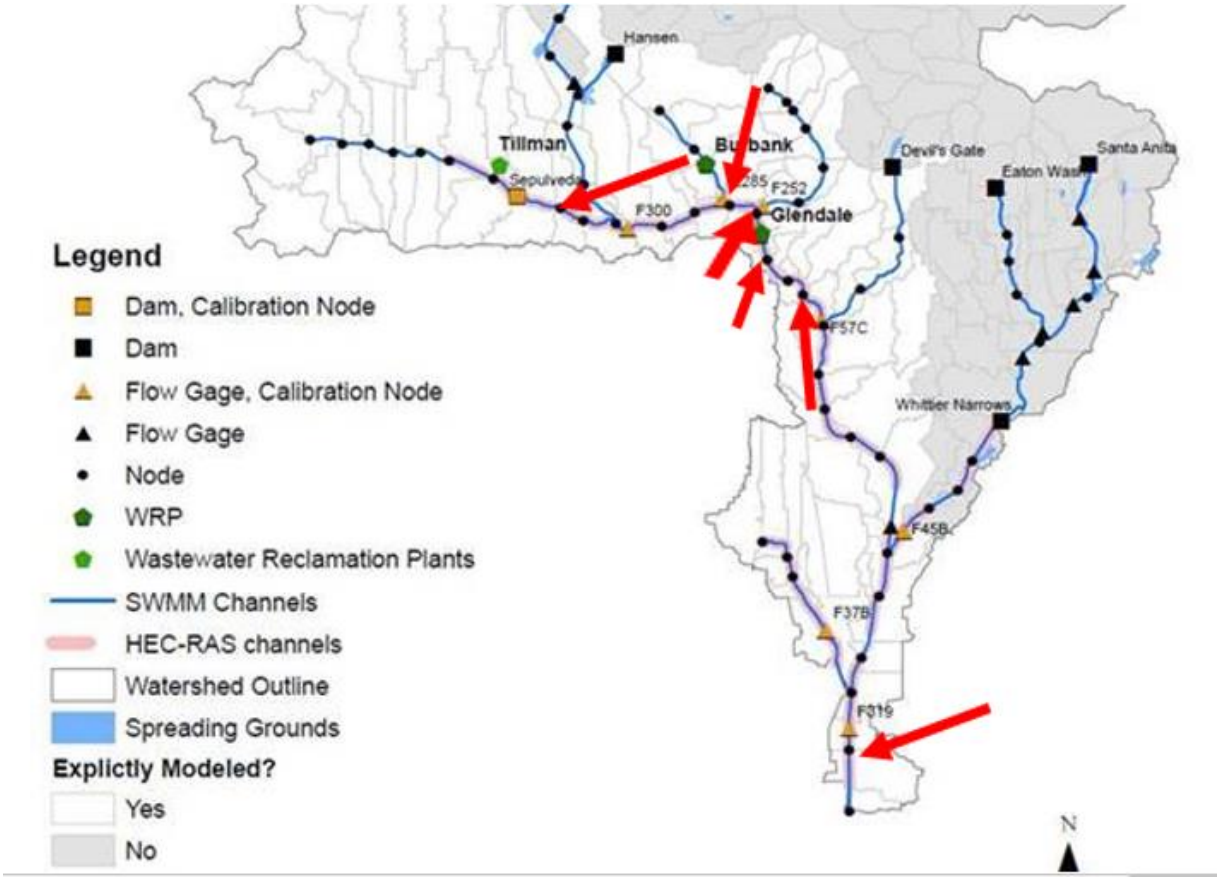

Figure 5.3-2. Model Domain with Callout for Analysis Locations (adapted from Stein et al. 2021a)

5.3.2 Project-Specific Hydraulic Analysis

The proposed Project-specific and cumulative impact analysis made direct use of the toolkit provided by the *Los Angeles River Environmental Flows Study* (Stein et al. 2021a). Specifically, this analysis used the native files for the SCCWRP use of the EPA SWMM and HEC-RAS hydraulic model. After obtaining the files from SCCWRP, this analysis used the calibrated and validated model to analyze the specific changes

in flow in the Los Angeles River that could potentially occur under changes in flow proposed by the City at DCTWRP (the proposed Project). The analysis also used the model to analyze the specific changes in flow that could potentially occur with implementation of the proposed Project in combination with those projects considered in this cumulative effect's analysis (changes in flow from the Burbank and Glendale Water Reclamation Plants in addition to proposed Project changes).

The model obtained from SCCWRP in February 2021 (Stein et al. 2021a) contained the soft-bottom updates from surveys performed in July 2020, and Manning's roughness coefficient recalibrations completed in January 2021. The model includes two geometries, one corresponding to low-flows and the other to high-flows, where portions of the Los Angeles River have differing Manning's roughness coefficient based on model calibration. For the proposed Project-specific hydraulic analysis, the diversion of water from DCTWRP was assumed constant throughout the year, equating to 4.3 million gallons per day (6.7 cubic feet per second). This volume was subtracted from Los Angeles River flows downstream of the DCTWRP discharge point.

To evaluate cumulative effects, Los Angeles River flowrates when considering implementation of the proposed Project were additionally reduced by 4.1 cubic feet per second at all locations downstream of the Burbank Western Channel (the discharge point of the Burbank Water Reclamation Plant) and further reduced by 8.1 cubic feet per second downstream of the Los Angeles Glendale Water Reclamation Plant discharge to the Los Angeles River. The actual flow baseline is established by the measured data in the channel. For purposes of modeling potential changed flow regimes in the Los Angeles River, the hydraulic model component of the SCCWRP study were approximated through model calibration to be representative of the baseline for this analysis due to availability of data. The flowrates at the USGS gage 11092450 were used to set the flows at the Sepulveda Blvd location and flows downstream were set proportionally to match the SCCWRP evaluation.

Specifically, the following scenarios were evaluated using the data over the analyzed period between January 2008 and June 2019:

- Current conditions:
- the lowest monthly mean daily flow (April),
- the highest monthly mean daily flow (January), and
- the lowest average monthly mean daily flow (August).
- Project conditions as well as proposed reductions in discharge from the Burbank Water Reclamation Plant and the Los Angeles-Glendale Water Reclamation Plant:
- the lowest monthly mean daily flow (April) minus the average discharge from Japanese Garden (6.6 cfs) as well as the reduction in discharges to the Los Angeles River associated with the Burbank (4.1 cfs) and the Glendale (8.1 cfs) water reclamation plants; and,
- the lowest average monthly mean daily flow (August) minus the average discharge from Japanese Garden (6.6 cfs) as well as the reduction in discharges to the Los Angeles River associated with the Burbank (4.1 cfs) and the Glendale (8.1 cfs) water reclamation plants.

These scenarios were modeled at seven locations along the river: 1) at Sepulveda Boulevard in Reach 4 immediately downstream of the DCTWRP discharge point; 2) five locations within Reach 3 which

includes the open-bottom channel area and the area with the current highest in-channel recreational use to characterize conditions upstream and downstream of the DCTWRP discharge and the flow inputs from the Burbank and Glendale water reclamation plants; and, 3) at Willow Avenue in Reach 1 to characterize conditions at the downstream end of the Los Angeles River. These locations are shown in Figure 5.3-2, and modeled flows rates for each scenario are shown in Figures 5.3-3, 5.3-4, and 5.3-5. The model results are summarized in Tables 5.3-2 and 5.3-3.

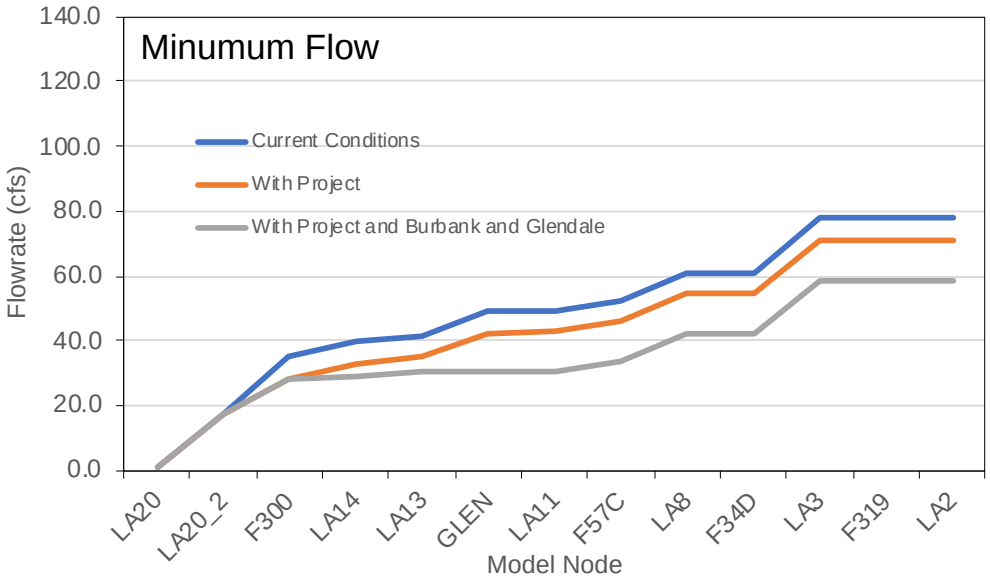

Figure 5.3-3. Modeled Los Angeles River Flowrates for the Minimum Flow Condition

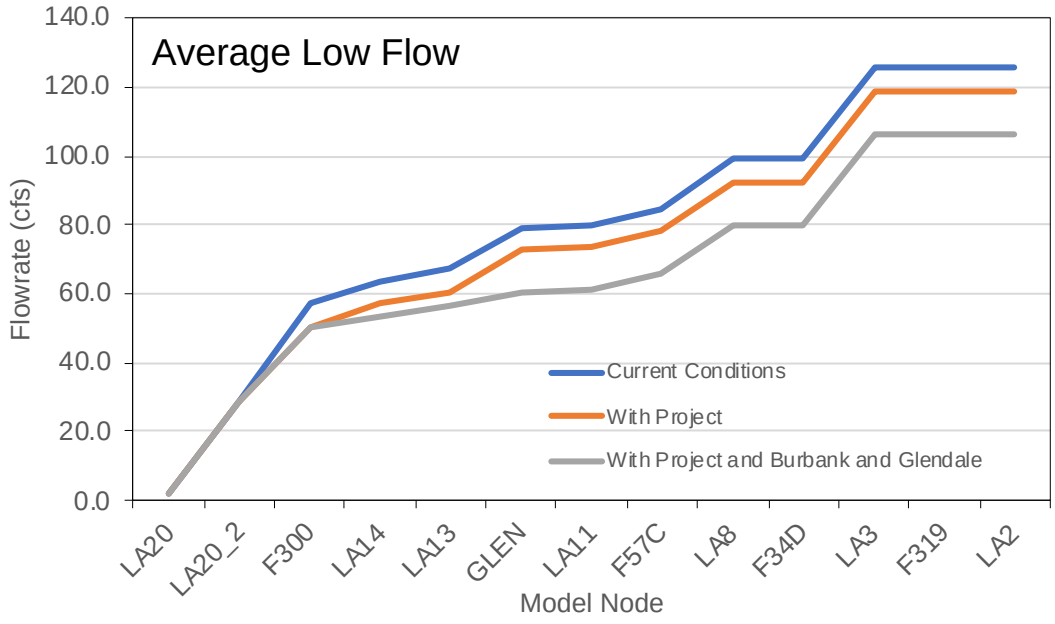

Figure 5.3-4. Modeled Los Angeles River Flowrates for the Average Low Flow Condition

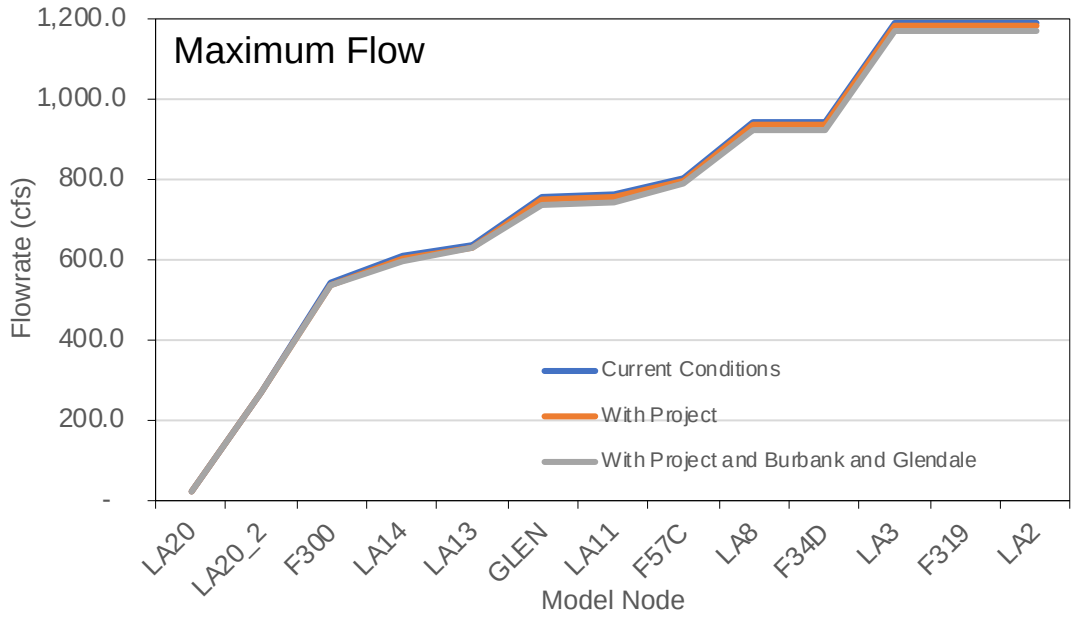

Figure 5.3-5. Modeled Los Angeles River Flowrates for the Maximum Flow Condition

Table 5.3-2. Hydraulic Model Results for Minimum Flow Conditions

River Reach	Model Node	Modeled Scenario	Flow (cfs)	% Change in Flow between Current and Modeled Condition	Max Depth (ft)	% Change in Max Depth between Current and Modeled Condition	Wetted Perimeter (ft)
4 (Sepulveda Dam to Riverside Drive)	Sepulveda Blvd	Current Conditions	35.2	0.0%	0.27	0.0%	45.44
		Current Conditions minus Japanese Garden Discharge	28.5	-19.0%	0.23	-14.8%	45.36
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	28.5	-19.0%	0.23	-14.8%	45.36
3 (Riverside Drive to Figueroa Street)	LA14	Current Conditions	39.8	0.0%	0.21	0.0%	75.71
		Current Conditions minus Japanese Garden Discharge	33.2	-16.6%	0.24	14.3%	47.61
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with	29.1	-26.9%	0.23	9.5%	44.76

River Reach	Model Node	Modeled Scenario	Flow (cfs)	% Change in Flow between Current and Modeled Condition	Max Depth (ft)	% Change in Max Depth between Current and Modeled Condition	Wetted Perimeter (ft)
		Burbank and Glendale Water Reclamation Plant Projects					
	LA13	Current Conditions	41.8	0.0%	0.11	0.0%	380.17
		Current Conditions minus Japanese Garden Discharge	35.2	-15.8%	0.1	-9.1%	380.17
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	31.1	-25.6%	0.09	-18.2%	380.16
	Glendale	Current Conditions	49.6	0.0%	0.42	0.0%	133.84
		Current Conditions minus Japanese Garden Discharge	42.9	-13.5%	0.39	-7.1%	130.09
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	30.7	-38.1%	0.35	-16.7%	121.79
	LA11	Current Conditions	49.9	0.0%	0.81	0.0%	60.02
		Current Conditions minus Japanese Garden Discharge	43.3	-13.2%	0.75	-7.4%	57.29
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	31.1	-37.7%	0.61	-24.7%	50.90
	Elysian Valley	Current Conditions	49.9	0.0%	1.68	0.0%	54.50
		Current Conditions minus Japanese Garden Discharge	43.3	-13.2%	1.59	-5.4%	52.84
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	31.1	-37.7%	1.41	-16.1%	50.70

River Reach	Model Node	Modeled Scenario	Flow (cfs)	% Change in Flow between Current and Modeled Condition	Max Depth (ft)	% Change in Max Depth between Current and Modeled Condition	Wetted Perimeter (ft)
1 (Carson Street to estuary at Willow Ave)	Willow Ave	Current Conditions	78.2	0.0%	0.96	0.0%	33.52
		Current Conditions minus Japanese Garden Discharge	71.5	-8.6%	0.91	-5.2%	32.86
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	59.3	-24.2%	0.82	-14.6%	31.66

Table 5.3-3. Hydraulic Model Results for the Average Flow Conditions

River Reach	Model Node	Modeled Scenario	Flow (cfs)	% Change in Flow between Current and Modeled Condition	Max Depth (ft)	% Change in Max Depth between Current and Modeled Condition	Wetted Perimeter (ft)
4	Sepulveda Blvd	Current Conditions	56.9	0.0%	0.37	0.0%	45.6
		Current Conditions minus Japanese Garden Discharge	50.2	-11.8%	0.34	-8.1%	45.6
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	50.2	-11.8%	0.34	-8.1%	45.6
3	LA14	Current Conditions	63.8	0.0%	0.22	0.0%	108.9
		Current Conditions minus Japanese Garden Discharge	57.1	-10.5%	0.20	-9.1%	104.7
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in	53.0	-16.9%	0.19	-13.6%	101.7

River Reach	Model Node	Modeled Scenario	Flow (cfs)	% Change in Flow between Current and Modeled Condition	Max Depth (ft)	% Change in Max Depth between Current and Modeled Condition	Wetted Perimeter (ft)
		Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects					
	LA13	Current Conditions	67.0	0.0%	0.14	0.0%	380.3
		Current Conditions minus Japanese Garden Discharge	60.3	-10.0%	0.14	0.0%	380.3
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	56.2	-16.1%	0.13	-7.1%	380.3
	Glendale	Current Conditions	79.4	0.0%	0.48	0.0%	156.0
		Current Conditions minus Japanese Garden Discharge	72.7	-8.4%	0.46	-4.2%	154.3
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	60.5	-23.8%	0.43	-10.4%	146.0
	LA11	Current Conditions	80.0	0.0%	1.01	0.0%	69.1
		Current Conditions minus Japanese Garden Discharge	73.3	-8.4%	0.98	-3.0%	67.4
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water	61.1	-23.6%	0.90	-10.9%	63.9

River Reach	Model Node	Modeled Scenario	Flow (cfs)	% Change in Flow between Current and Modeled Condition	Max Depth (ft)	% Change in Max Depth between Current and Modeled Condition	Wetted Perimeter (ft)
		Reclamation Plant Projects					
	Elysian Valley	Current Conditions	80.0	0.0%	2.03	0.0%	68.1
		Current Conditions minus Japanese Garden Discharge	73.3	-8.4%	1.94	-4.4%	59.4
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	61.1	-23.6%	1.82	-10.3%	57.0
1	Willow Ave	Current Conditions	125.3	0.0%	1.34	0.0%	487.4
		Current Conditions minus Japanese Garden Discharge	118.6	-5.3%	1.30	-3.0%	487.2
		Current Conditions minus Japanese Garden Discharge as well as Proposed Reduction in Discharges Associated with Burbank and Glendale Water Reclamation Plant Projects	106.4	-15.1%	1.23	-8.2%	486.9

5.4 Cumulative Impact Assessments

5.4.1 Aesthetics

Construction at the DCTWRP associated with the various projects detailed in Section 5.2 above, would be completed prior to the proposed Project construction and following completion of proposed activities, the Japanese Garden area would be revegetated in a manner consist with the current landscape design. The City seeks to combine construction projects at the facilities into single construction packages to minimize disturbance of visitors to the Japanese Garden. Therefore, construction activity of the related projects would result in minor and temporary effects to the visual resources at the facility.

With regard to water discharge, the reduction in flows associated with the proposed Project in combination with the changes in flow from the Burbank and Glendale Water Reclamation Plants would result in a cumulative decrease in flows in the Los Angeles River within the reaches below the Sepulveda Dam. This decrease could adversely affect aesthetics in the river as the decreased flow could result in changes to the vegetation in the soft bottom reaches of the river. However, cumulative changes in flow volumes would be less than significant, therefore, it is anticipated the changes in visual resources would be similarly less than significant.

5.4.2 Agriculture and Forestry Resources

Neither the proposed Project site nor any of the sites associated with the related projects specified in Sections 5.1 and 5.2 above, are used or designated as agricultural land or forest land. Therefore, no cumulative impacts related to agricultural resources would occur.

5.4.3 Air Quality

Cumulative air quality impacts are discussed in response to Checklist Question AIR (b). As discussed there, SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified above also would be considered cumulatively considerable. Individual projects that generate emissions below SCAQMD's significance thresholds would not contribute considerably to any potential cumulative impact. As the proposed Project's emissions during construction and operation would not exceed any applicable significance threshold, the proposed Project's contribution to any cumulative air quality impacts would not be considerable, and cumulative impacts related to air quality would be less than significant.

5.4.4 Biological Resources

As discussed in Section 4.4, the proposed Project would not result in significant impacts to biological resources, including candidate, sensitive, or special status species or the riparian habitat and sensitive natural communities in the Los Angeles River. Cumulative impacts from the planned future reductions of 4.1 cfs from the Burbank Water Reclamation Plant's discharge to the Burbank Western Channel (which subsequently flows into the Los Angeles River) and 8.1 cfs from the Los Angeles-Glendale Water Reclamation Plant's discharge to the Los Angeles River are described by river segment to remain consistent with the organization of Section 4.4.

Upper Los Angeles River

No cumulative impacts at the DCTWRP discharge point or throughout the remainder of the Upper Los Angeles River area are expected due to the planned future reductions from the Burbank Water Reclamation Plant discharge to the Burbank Western Channel and from the Los Angeles Glendale Water Reclamation Plant discharge to the Los Angeles River, since both of these discharges enter the river further downstream and thus would not affect water flow, water depth, or riparian habitat within the Upper Los Angeles River.

Glendale Narrows

The planned future reductions in discharges from the Burbank and Glendale Water Reclamation Plants to the Los Angeles River would reduce cumulative flows by as much as 10.8 cfs (including the 6.7 cfs reduction from DCTWRP) at the LA14 location and by a maximum of 18.9 cfs at the other three locations (Glendale, LA11, and Elysian Valley) within the Glendale Narrows (see Hydraulic Report and Table 5.1-2 above). The maximum water depth at the four locations in the Glendale Narrows would be reduced by 0 to 0.18 ft from depths predicted with the proposed Project, maximum flow velocity would be reduced by as much as 0.11 ft/s, and the overall wetted area of the channel would be reduced by 0 to 6% (except at the LA11 location, where the wetted area would be reduced by 11% under the lowest dry weather condition). These changes in water depth, flow velocity, and wetted areas are minor and would not noticeably change habitat conditions in the soft-bottom areas of the channel and riparian habitat would not be impacted. Consequently, cumulative impacts to candidate, sensitive, or special status species as well as to riparian vegetation and sensitive natural communities in the Los Angeles River would be less than significant.

Lower Los Angeles River

The hydraulic model predicts that eliminating the discharge of 6.7 cfs from the DCTWRP, 4.1 cfs from the Burbank Water Reclamation Plant, and 8.1 cfs from the Los Angeles Glendale Water Reclamation Plant would decrease the total flow in the Lower Los Angeles River by 24% under the lowest dry weather condition, by 15% under the average dry weather condition, and by only 2% under the highest wet weather condition. However, the maximum water depth would decrease by only 0.01 to 0.09 ft compared to the proposed Project condition, the maximum flow velocity would change by a decrease of 0.01 to 0.19 ft/s and the total wetted area of the channel would decrease by between 0 and 4%.

According to flow recommendations developed to support aquatic life and protect beneficial uses in the Los Angeles River, the flows required to support *Cladophora* spp. (species indicative of the health of algal and benthic invertebrate communities) would be 266 to 12,477 cfs to provide a medium probability of supporting suitable habitat and 486-2,151 cfs to provide a high probability of supporting suitable habitat under summer flow conditions in the Lower Los Angeles River (Stein et al. 2021b). Flows under the lowest dry weather condition with the reduced flows from DCTWRP, and Burbank and Glendale Water Reclamation Plants are predicted to be 59.3 cfs, and under the average dry weather condition are predicted to be 106.4 cfs, both under the threshold to provide a medium or high probability of supporting suitable habitat; however, it should be noted that the existing flows of 78.2 cfs under the lowest dry weather condition and 125.3 cfs under the average dry weather condition are also under both of these thresholds. Consequently, cumulative impacts to candidate, sensitive, or special status species as well as to riparian vegetation and sensitive natural communities would be less than significant.

Los Angeles River Estuary

The cumulative result of eliminating 4.1 cfs from the Burbank Water Reclamation Plant and 8.1 cfs from the Los Angeles Glendale Water Reclamation Plant, in combination with the reduction of 6.7 cfs in the DCTWRP discharge, would have a negligible effect on the estuary. The volume of seawater entering and leaving the estuary during daily tidal cycles is much greater than the volume of freshwater flow entering the estuary from the Los Angeles River. Therefore, the minor decrease in freshwater flows produced by

the proposed Project in combination with the other two project reductions would have minor impacts on habitat conditions and biological communities present within the estuary. Consequently, the cumulative impact on candidate, sensitive, or special status species as well as riparian and sensitive natural communities would be less than significant.

5.4.5 Cultural Resources

Impacts related to archaeological resources and human remains are site-specific and are assessed on a site-by-site basis. All development in the City (including the proposed Project and the related projects detailed in Section 5.1 and 5.2 above) that involves ground-disturbing activities is required to implement standard City conditions of approval related to the discovery of archaeological resources, as well as existing state and City regulations related to discovery of human remains. The proposed Project would not result in impacts to any significant historical resource. Thus, the proposed Project would not have the potential to contribute toward any significant cumulative impacts related to historical resources. For these reasons, cumulative impacts related to cultural resources would be less than significant. Energy

Following construction, the proposed Project would not require any additional energy resources to operate beyond the power already used for the DCTWRP. Similarly, the proposed Project would result in a negligible increase in overall VMT; the energy impacts from the increase in transportation energy demand would not be cumulatively considerable. Therefore, the proposed Project, in conjunction with the related projects detailed in Section 5.1 and 5.2 above, would result in no cumulative effects with regard to energy supply or demand.

5.4.6 Geology and Soils

Impacts related to geology and specific to the project site and its users and would not be in common or contribute to (or shared with, in an additive sense) the impacts on other sites. In addition, development on each site is subject to uniform site development and construction standards that are designed to protect public safety. As discussed in Section 4.7, the proposed Project would not result in significant impacts regarding geology and soils. Any potentially significant impacts of the related projects detailed in Sections 5.1 and 5.2 associated with geology and soils, including the rupture of a known earthquake fault, strong seismic ground shaking, liquefaction, landslides, substantial soil erosion, or the loss of topsoil are assessed on a project-by-project basis. Therefore, the proposed Project in conjunction with the related Project, would result in less than significant cumulative impacts to geology and soils.

5.4.7 Greenhouse Gas Emissions

GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (California Office of Planning and Research 2008). However, it is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory (California Office of Planning and Research 2008). The State has implemented a vast array of regulations, policies, and programs to reduce the state's contribution to global GHG emissions. The proposed Project, on both a local and a regional level, would ensure that there would be no net increase in GHG emissions compared to existing conditions associated with water supplied from DCTWRP, and thus would not represent a cumulatively considerable contribution toward global GHG emissions.

Similarly, all future development with the potential to generate GHG emissions would be required to demonstrate compliance with applicable federal and state regulatory requirements, including General Plan goals and policies of the affected jurisdiction, intended to reduce and/or avoid potential adverse environmental effects. As such, cumulative impacts to GHG emissions would be mitigated on a project-by-project level, and in accordance with the established regulatory framework, through the established regulatory review process. As discussed as in Section 4.8, the proposed Project would result in less than significant impacts regarding GHG emissions. Therefore, the proposed Project would not contribute to any significant cumulative effects related to GHG.

5.4.8 Hazards and Hazardous Materials

As discussed in Section 4.9, the proposed Project would not result in significant impacts associated with hazards and hazardous materials. With respect to the related projects detailed in Sections 5.1 and 5.2 above, each of the related projects is required to evaluate potential hazards. As hazardous materials and risk of upset conditions are largely site-specific, this occurs for each individual project effect, in conjunction with development proposals on these properties. The geographic extent of the proposed Project's environmental impacts is limited to the proposed Project sites and would not contribute to any other potential environmental impact that may occur beyond the boundaries of the proposed Project sites. All other development projects would be subject to discretionary or ministerial review by their respective jurisdictions, which would be responsible for assessing potential hazards risks associated with those related projects, and if necessary, the applicants of those projects would be required to implement measures appropriate for the type and extent of hazardous materials present and the land use proposed to reduce the risk associated with the hazardous materials to an acceptable level. Therefore, the proposed Project, in conjunction with the related Projects detailed in Sections 5.1 and 5.2, would result in no cumulative impact regarding hazards and hazardous materials.

5.4.9 Hydrology and Water Quality

In regard to water quality affects resulting from reduction in flow associated with the proposed Project as well as the proposed reduction in discharges associated with the Burbank and Glendale Water Reclamation Plant Project, the hydraulic model developed for the Los Angeles River by SCCWRP was used to evaluate potential impacts (Stein et al. 2021a) associated with the potential reduction in dilution effects.

The model results for the most conservative scenario using the lowest monthly mean daily flow (April) over the analyzed period indicate that the percent change in flow between current conditions and modeled conditions ranges from -5.3% in Reach 1 to -38.1% in Reach 3 as shown in Table 5.1-2. The results for the lowest average monthly mean daily flow (August) over the analyzed period indicate that the percent change in flow between current conditions and modeled conditions ranges from -5.3% in Reach 1 to -23.8% in Reach 3 as shown in Table 5.1-3. These reductions are not expected to substantially impact downstream water quality. In addition, the Los Angeles RWQCB would continue to enforce water quality objectives specified in their respective permits. Accordingly, cumulative impacts to water quality along the Los Angeles River would be less than significant.

5.4.10 Land Use and Planning

Cumulative projects would be evaluated on a project-by-project basis, as they are implemented within the City of Los Angeles and other cities/communities. Each cumulative project (as described in Sections 5.1 and 5.2) would undergo a plan review process to determine potential land use planning policy and regulation conflicts. Each cumulative project would be analyzed independently and within the context of their respective land use and regulatory settings. As part of their review process, each project would be required to demonstrate compliance with the provisions of applicable land use designation(s) and zoning district(s). As discussed in Section 4.11, the proposed Project would not result in any changes to land use or zoning or result in any inconsistencies with any of the applicable plans, policies, or regulations. As such, the proposed Project would not contribute to any cumulative effects with respect to land use and planning regardless of any potential inconsistencies the related projects may result in.

5.4.11 Mineral Resources

As discussed as in Section 4.12, the proposed Project would have no impact on mineral resources, therefore, the proposed Project would not contribute to any cumulative effects in this regard.

5.4.12 Noise

Concurrently scheduled projects are not expected to result in cumulative impacts pertaining to noise when considered in conjunction to the proposed Project. Given the life expectancy of the replaced equipment, project timing, and minimal alteration of facilities associated with these projects, cumulative impacts and significant environmental effects resulting from concurrent projects are not anticipated to occur. The projects proposed at DCTWRP detailed in Section 5.2 fall under Class 1 (15301 (b)) and Class 2 (15302 (c)) exemptions under CEQA as well as additional exemptions under the CEQA Guidelines. The concurrent projects involve the rehabilitation of existing facilities within the DCTWRP and/or the repair and replacement of diversion/isolation structures used in the treatment of sewage within an existing facility with no expansion of use or capacity than existing at the time of the projects.

As discussed as in Section 4.13, the proposed Project would not result in significant impacts regarding noise. Construction activities associated with the proposed Project would be short-term and temporary and the proposed Project would not result in any permanent increases in noise. No other construction projects at the DCTWRP would occur concurrent with the proposed Project, therefore, the proposed Project would not contribute to any significant cumulative effects related to noise.

5.4.13 Population and Housing

As discussed as in Section 4.14, the proposed Project would have no impact related to population and housing. The proposed Project would not result in unplanned growth. Thus, the proposed Project would not have the potential to contribute to any cumulative impacts related to potential unplanned growth.

5.4.14 Public Services

As discussed as in Section 4.15, the proposed Project would not result in significant impacts regarding public services. The proposed Project would not result in cumulative impacts to public services in the area as no public services would be impacted by the proposed Project.

5.4.15 Recreation

Based on the incremental reductions in discharge associated with the proposed Project in combination with the reduction in discharges from the Burbank and Glendale Water Reclamation Plants, the primary potential impacts would be to in-channel recreational uses, most significantly to kayaking/boating. The significance of potential impacts was assessed by evaluating the change in maximum water depth to determine if the proposed Project changes would reduce water depths below one foot in areas that currently exceed this depth or, if current maximum water depth is below this threshold, then the percent change in maximum water depth between current and modeled conditions. As described in Section 4.16, kayaks and canoes typically have a total depth of around 14-16 inches, with about half that depth being below the waterline. As a rough guide, any flow deeper than one-foot (12-inches) is likely to be suitable for the type of craft used on the Los Angeles River (ESA, 2017; ESA, 2018). Similarly, suitable depths for fishing are between one and two feet.

The model results for the most conservative scenario using the lowest monthly mean daily flow (April) over the analyzed period indicate that, under current conditions, only the maximum water depth at the Elysian Valley node in Reach 3 would support in-channel canoe or kayak use. The maximum water depths at each of the other nodes are less than one foot under current conditions, ranging from 0.11 to 0.96 feet, as well as the modeled proposed Project scenarios, ranging from 0.09 to 0.82 feet. The Elysian Valley area represents the portion of the river with the highest in-channel recreational use and the model results indicate that maximum water depth exceeds one-foot for all of the modeled proposed Project scenarios, ranging from 1.68 feet under current conditions to 1.41 feet with the flow reductions from the Japanese Garden discharge as well as the proposed reductions in discharge associated with the Burbank and Glendale Water Reclamation Plants. Given that the Elysian Valley area is the only portion of the river that could support in-channel uses under current conditions based on the maximum depth threshold of one-foot and that maximum water depths exceed one-foot under the modeled proposed Project scenarios, the potential for cumulative impacts would be less than significant.

The model results using the lowest average monthly mean daily flow (August) over the analyzed period indicate that, under current conditions, the water depths between Sepulveda Boulevard in Reach 4 and the “Glendale” node in Reach 3 do not support in-channel canoe or kayak use or fishing as the maximum water depths range between 0.14 and 0.48 feet. In these areas, the potential impacts under the two proposed Project-related scenarios show a decrease in maximum water depth between 0 and 0.05 feet (or between 0% and 13.6% relative to maximum depth under current conditions). The modeled areas downstream of the “Glendale” node indicate maximum depths of one-foot or greater under current conditions including a depth of over two-feet in the Elysian Valley area, the portion of the river with the highest in-channel recreational use. Under the two modeled proposed Project scenarios, the maximum water depths are maintained above one foot with the exception of Model Node LA11 that is situated between the “Glendale” node and Elysian Valley. At this location, the maximum water depth decreases from 1.01 feet under current conditions to 0.90 feet without the average discharge from Japanese Garden, and Burbank and Glendale water reclamation plant facilities. While the maximum water depth at Model Node LA11 drops below the one-foot threshold, the maximum reduction in depth represents a 10.9% decrease in this area, and the maximum water depths in the areas downstream including the area of highest in-channel use, the Elysian Valley area, exceed the one-foot threshold even considering the cumulative reduction in discharges. Accordingly, given the limited reduction in the maximum water

depth at Model Node LA11 and that maximum water depths exceed one foot under the modeled proposed Project scenarios in the areas downstream of this node including the Elysian Valley area, cumulative effects to recreational uses are considered less than significant.

5.4.16 Transportation

As discussed as in Section 4.17, the construction activities associated with the proposed Project would result in a negligible increase in overall VMT and impacts related to transportation would be less than significant. No other construction projects at the DCTWRP would occur concurrent with the proposed Project. Therefore, the proposed Project would not contribute to cumulative adverse effects on the traffic system and impacts would be less than significant.

5.4.17 Tribal Cultural Resources

As discussed as in Section 4.18, the proposed Project would not result in significant impacts regarding tribal cultural resources. Impacts related to tribal cultural resources tend to be site-specific and are assessed on a site-by-site basis. The City would require the applicants of each of the related projects detailed in Sections 5.1 and 5.2 above to assess, determine, and mitigate any potential impacts related to tribal cultural resources that could occur as a result of development, as necessary. As discussed previously, through compliance with existing laws and the City's conditions of approval, proposed Project impacts associated with historic, archaeological, and paleontological resources would be less than significant. However, the occurrence of these impacts would be limited to the proposed Project site and would not contribute to any potentially significant cultural resources impacts that could occur at the sites of the related projects. As such, the proposed Project would not contribute to any potential cumulative impacts related to tribal cultural resources. Therefore, cumulative impacts related to cultural resources would be less than significant.

5.4.18 Utilities and Service Systems

As discussed in Section 4.19, construction and operation of the proposed Project would require minimal amounts of water and would generate minimal amounts of wastewater. The solid waste generated during construction and operation would be sent to one or more landfills in the area; however, the amount would not be enough to affect the permitted capacity of a landfill. In addition, materials would be reused and recycled to the extent possible. The impacts would be less than significant during construction and operation. Any impacts on utilities and service systems caused by the construction and operation of the related projects detailed in Sections 5.1 and 5.2 above are addressed by the respective and responsible local agencies during each project's environmental process. Therefore, the proposed Project, in conjunction with the related projects, would result in less than significant cumulative impacts to utilities and service systems.

5.4.19 Wildfire

As discussed as in Section 4.20, the proposed Project site is located within urbanized/developed area and is outside of designated fire hazard severity zones. Therefore, no cumulative impacts related to this issue would occur.

SECTION 6 Growth-Inducing Impacts

Section 15125.2(d) of the CEQA Guidelines requires a discussion of the ways in which a project could induce growth. This includes ways in which a project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.

Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place without the implementation of the proposed Project. Typically, the growth-inducing potential of a project would be considered significant if it resulted in growth or population concentration that exceeds those assumptions included in pertinent master plans, land use plans, or projections made by regional planning authorities. However, the creation of growth-inducing potentials does not automatically lead to growth, whether it would be below or in exceedance of a projected level.

As discussed in Chapter 2, Project Description, the proposed Project would construct and operate a new diversion facility consisting of a new valve and new pipeline to facilitate recirculating the Japanese Garden discharge flow back to DCTWRP. The new valve would be installed at the outlet of the Japanese Garden. From the new valve, approximately 80 feet of new buried pipeline would be installed to convey the water to the headworks of DCTWRP for additional treatment. After treatment, the recycled water would be conveyed by the existing pipeline system to the Hansen and Pacoima spreading grounds to replenish the San Fernando Groundwater Basin. The proposed Project would not include the construction of any residential uses or other uses that would result in an increase in the population of the proposed Project area. The proposed Project would not stimulate significant employment, involve the development of new housing, or significantly affect the economy of the region (see Section 4.14). Therefore, the Project would not result in a direct significant growth-inducing impact in the proposed Project area.

The fundamental purpose of the proposed Project is to reduce the City's dependence on imported water sources by increasing the local groundwater supply available for potable use. With implementation of the proposed Project, recirculation of recycled water currently discharged to the Japanese Garden would allow the City to utilize the capacity of its existing infrastructure more fully at DCTWRP, the Valley recycled water system, and the groundwater replenishment spreading grounds. This would support the Groundwater Replenishment Project's objective of offsetting imported water supplies with purified water through groundwater replenishment, thereby supplementing the City of Los Angeles' local potable water supply and increasing system reliability and sustainability. The proposed Project is consistent with the Los Angeles Mayor's 2014 Executive Directive No. 5 (Emergency Drought Response), 2015 Sustainable City Plan, and 2012 Recycled Water Master Plan. Because the proposed Project is intended to replace existing imported supplies, it would not increase overall water supplies to the City in a manner that would induce population growth.

SECTION 7 Mandatory Findings of Significance

In accordance with 2020 CEQA guidelines, the lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur:

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

The proposed Project would not degrade the quality of the environment. Construction impacts would be temporary and mitigable, and operations impacts would be less than significant. In addition, the proposed Project would not have significant impacts on biological resources, hydrology or recreation in the Los Angeles River. Therefore, the proposed Project's impacts would be less than significant.

MFS (b). Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7). A cumulative impact includes the total effect on a natural resource, ecosystem, or human community due to past, present, and future activities or actions. Cumulative impacts may also include the effects of natural processes and events. Accordingly, there may be different cumulative impacts on different resources. Significant cumulative impacts would occur if incremental impacts of the proposed Project, in addition to the impacts of past, present, and reasonably foreseeable future actions resulted in significant adverse impacts to resources assessed in this Initial Study.

Past, present and reasonably foreseeable future actions within DCTWRP as well as within a 2-mile radius of DCTWRP were considered alongside the proposed Project when evaluating potential cumulative effects of construction activity. This Initial Study also evaluates the cumulative effects of activities related to the Los Angeles River when considering operation of the proposed Project. For those projects that would involve improvements or expansion beyond the scope of current DCTWRP operations, additional, project-specific documentation to fulfill CEQA requirements would be prepared prior to their implementation. It is unlikely that implementation of the proposed Project would coincide with the projects planned within DCTWRP property in time or occur in the same immediate vicinity as those projects such that cumulative effects would occur.

Analysis of the potential impacts of these projects on resources within DCTWRP property and the surrounding area indicated that there would be no cumulative effect with regard to agriculture and forest resources, cultural resources, energy, hazards and hazardous materials, mineral resources, noise, population and housing, public services, transportation, tribal cultural resources, or wildfire. Potential

cumulative effects related to aesthetics, air quality, biological resources, geology and soils, greenhouse gas emissions, hydrology and water quality, land use and planning, recreation, and utilities and service systems would be less than significant. No significant cumulative impacts to any of the resources assessed in this Initial Study would occur as a result of implementation of the proposed Project and implementation of present and reasonable foreseeable future actions planned within DCTWRP property and the surrounding area, within a 2-mile radius.

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

The proposed Project would not result in any significant impacts. The proposed Project would have less than significant impacts on aesthetics, air quality, geology and soils, greenhouse gas emissions, land use and planning, and utilities and service systems. The proposed Project would have no impact on agriculture and forest resources, cultural resources, energy, hazards and hazardous materials, mineral resources, noise, population and housing, public services, transportation, tribal cultural resources, or wildfire. As a result, the proposed Project would have no environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

SECTION 8 Acronyms and Abbreviations

[Q]PF-1XL	Public Facilities Zoning Designation
°F	Fahrenheit
AB	Assembly Bill
AC	Alternating Current
AFY	Acre-Feet Per Year
ANGS	Air National Guard Station
AQMP	Air Quality Management Plan
AVORS	Additional Valley Outfall Relief Sewer
Basin	South Coast Air Basin
BLM	Bureau of Land Management
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention Program
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CALGreen	California Green Building Code
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEC	California Energy Commission
CEQ	Council of Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfs	Cubic Feet Per Second
City	The City of Los Angeles
CMP	Congestion Management Program

CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
Corps	United States Army Corps of Engineers
CRAM	California Rapid Assessment Method
CRHR	California Register of Historical Resources
cy	Cubic Yards
dBA	A-Weighted Decibels
db	Decibel
DC	Direct Current
DCTWRP	Donald C. Tillman Water Reclamation Plant
DDW	Division of Drinking Water
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EMD	City of Los Angeles Emergency Management Department
EO	Executive Order
ESA	Endangered Species Act
EVIS	East Valley Interceptor System
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FTA	Federal Transit Administration
FEMA	Federal Emergency Management Agency
FP	fully protected
GHG	Greenhouse Gas Emissions
GWP	Global Warming Potential
GWR	Groundwater Recharge
HFCs	Hydroflourocarbons
HRI	California State Historic Resources Inventory
HSG	Hansen Spreading Grounds
H_2S	Hydrogen Sulfide
HTS	Hyperion Treatment System
HWRP	Hyperion Water Reclamation Plant

IND	Industrial Service Supply
IPP	Intermountain Power Project
IRP	Integrated Resources Plan
IS	Initial Study
kV	Kilovolts
LADWP	Los Angeles Department of Water and Power
LAFD	Los Angeles County Fire Department
LAMC	Los Angeles Municipal Code
LAPD	Los Angeles Police Department
LASAN	Los Angeles Department of Public Works Bureau of Sanitation
Leq	Equivalent Noise Level
LOS	Level of Service
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
Metro	Metropolitan Transportation Authority
mg/L	Milligram Per Liter
MGD	Million Gallons Per Day
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
MRZ	Mineral Resources Zones
MUN	Municipal and Domestic Supply
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
ND	Negative Declaration
NDN	Nitrification Denitrification
NEHRP	National Earthquake Hazards Reduction Program
NGS	Navajo Generating Station
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Administration
NIST	National Institute of Standards and Technology
NO	Nitrogen Monoxide

NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
NSF	National Science Foundation
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
OS-1XL	Open Space Zoning Designation
Pb	Lead
PF	Public Facility
PFCs	Perfluorocarbons
PM	Particulate Matter
PM_{10}	Particulate Matter Less than 10 Microns in Diameter
$PM_{2.5}$	Particulate Matter Less than 2.5 Microns in Diameter
PPA	Power Purchase Agreement
ppm	Parts Per Million
PPV	Peak Particle Velocity
PVC	Polyvinyl Chloride
PRC	California Public Resource Code
PSG	Pacoima Spreading Grounds
REC-1	Contact Recreation
REC-2	Non-Contact Recreation
RTP	Regional Transportation Plan
RMS	Root Mean Square
ROGs	Reactive Organic Gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments

SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategies (SCS)
SF_6	Sulfur Hexaflouride
SFB	San Fernando Groundwater Basin
SO_2	Sulfur Dioxide
SO_s	Sulfur Oxides
SCS	Sustainable Communities Strategy
SoCalGas	Southern California Gas Company
SRA	State Responsibility Area
SRP	Scientific Review Panel
SSMP	Sewer System Management Plan
SWF/LS	Solid Waste Information Sites
SWRCB	California State Water Resources Control Board
TACS	Toxic Air Contaminants
TCR	Tribal Cultural Resource
UBC	Uniform Building Code
uq/m^3	Micrograms Per Cubic Meter
ULARA	Upper Los Angeles River Area
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
the Basin	South Coast Air Basin
VdB	Vibration Decibels
VOCs	Volatile Organic Compounds
WARM	Warm Freshwater Habitat
WDR	Waste Discharge Requirement
WET	Wetland Habitat
WILD	Wildlife Habitat
WRR	Waste Recycling Requirement

SECTION 9 List of Preparers

9.1 City Agencies

Personnel	Project Role
Los Angeles Sanitation and Environment	
Hassan Rad	RAD-Division Manager
Paul Cobian	RAD-CEQA Project Manager
Ryan Thiha	WESD/DCT-LAG – Assistant Division Manager
Los Angeles Department of Water and Power	
Manuel Aguilar	Water Rights and Resource Management Group

9.2 Consultant Team

Personnel	Project Role
Catalyst Environmental Solutions	
Megan Schwartz, MESM	Project Manager/Project Lead
Daniel Tormey, PhD, PG	Program Manager
Emily Merickel	Quality Control
Paden Voget, PE	Air Quality Noise Greenhouse Gases
David Blankenhorn, PG	Geology and Soils Hydrology and Water Quality Recreation
Jack Sieber, BA	Cultural Resources Geology and Soils Hazards and Hazardous Materials Land Use & Planning Mineral Resources Tribal Resources Utilities and Service Systems Wildfire
Juliet Bachtel, BSc	Aesthetics Agriculture and Forestry Services

	Public Services Transportation Population and Housing
Larry Walker Associates	
Chris Minton	Hydrology and Water Quality
Mitchell Mysliwiec	Hydrology and Water Quality
MBC Aquatic Sciences	
David Vilas	Biological Resources
Michael Lyons	Biological Resources

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Appendix A Air Emissions

DC Tillman Diversion Construction

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.15	Acre	0.15	6,534.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2022
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

DC Tillman Diversion Construction - South Coast Air Basin, Annual

Project Characteristics -

Land Use - Approximately 0.15 acres of disturbance for installation of diversion facilities.

Construction Phase - Construction schedule per Table 2-3 of CEQA Document

Off-road Equipment - Equipment per Table 2-3 of CEQA document.

Off-road Equipment - Equipment per table 2-3 of CEQA Dcoument

Off-road Equipment - Equipment per Table 2-3 of CEQA Document

Off-road Equipment - Equipment per Table 2-3 of CEQA Document

Trips and VMT - Trips per Table 2-4 of CEQA Document

Vehicle Trips - No operation emissions associated with Project

Fleet Mix -

Road Dust - No operation emissions associated with Project

Area Coating - No architectural coating

Water And Wastewater - No operational emissions associated with Project

Solid Waste - No operation emissions associated with Project

Construction Off-road Equipment Mitigation - Project incorporates dust control measures and site restoration as part of the Project.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	0
tblAreaCoating	Area_EF_Nonresidential_Interior	100	0
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_EF_Residential_Exterior	50	0
tblAreaCoating	Area_EF_Residential_Interior	50	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	5.00	2.00
tblOffRoadEquipment	HorsePower	402.00	350.00
tblOffRoadEquipment	HorsePower	402.00	350.00

tblOffRoadEquipment	HorsePower	402.00	350.00
tblOffRoadEquipment	HorsePower	402.00	350.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators

tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Pavers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	UsageHours	4.00	8.00
tblRoadDust	MeanVehicleSpeed	40	0
tblRoadDust	RoadSiltLoading	0.1	0
tblSolidWaste	SolidWasteGenerationRate	0.01	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	6.00

tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	VendorTripNumber	1.00	4.00
tblTripsAndVMT	WorkerTripNumber	18.00	30.00
tblTripsAndVMT	WorkerTripNumber	15.00	30.00
tblTripsAndVMT	WorkerTripNumber	3.00	30.00
tblTripsAndVMT	WorkerTripNumber	25.00	30.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	OutdoorWaterUseRate	178,722.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	5.4400e-003	0.0494	0.0378	1.2000e-004	9.9000e-004	1.8500e-003	2.8400e-003	2.6000e-004	1.7100e-003	1.9700e-003	0.0000	10.5601	10.5601	2.9500e-003	0.0000	10.6339
Maximum	**5.4400e-003**	**0.0494**	**0.0378**	**1.2000e-004**	**9.9000e-004**	**1.8500e-003**	**2.8400e-003**	**2.6000e-004**	**1.7100e-003**	**1.9700e-003**	**0.0000**	**10.5601**	**10.5601**	**2.9500e-003**	**0.0000**	**10.6339**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	5.4400e-003	0.0494	0.0378	1.2000e-004	9.9000e-004	1.8500e-003	2.8400e-003	2.6000e-004	1.7100e-003	1.9700e-003	0.0000	10.5601	10.5601	2.9500e-003	0.0000	10.6339
Maximum	**5.4400e-003**	**0.0494**	**0.0378**	**1.2000e-004**	**9.9000e-004**	**1.8500e-003**	**2.8400e-003**	**2.6000e-004**	**1.7100e-003**	**1.9700e-003**	**0.0000**	**10.5601**	**10.5601**	**2.9500e-003**	**0.0000**	**10.6339**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.0000e-005	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.0000e-005	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

DC Tillman Diversion Construction - South Coast Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 - Site Prep and Demo	Site Preparation	10/1/2021	10/1/2021	5	1	
2	Phase 2 - Trenching	Trenching	10/4/2021	10/4/2021	5	1	
3	Phase 3 - Construction/Pipe Installation/Backfilling	Building Construction	10/5/2021	10/5/2021	5	1	
4	Phase 4 - Site Restoration	Paving	10/6/2021	10/7/2021	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 - Site Prep and Demo	Excavators	1	8.00	158	0.38
Phase 1 - Site Prep and Demo	Rubber Tired Loaders	1	8.00	203	0.36
Phase 1 - Site Prep and Demo	Concrete/Industrial Saws	1	8.00	81	0.73
Phase 1 - Site Prep and Demo	Off-Highway Trucks	1	8.00	402	0.38
Phase 1 - Site Prep and Demo	Off-Highway Trucks	1	8.00	402	0.38
Phase 1 - Site Prep and Demo	Off-Highway Trucks	2	8.00	350	0.38
Phase 2 - Trenching	Excavators	1	8.00	158	0.38
Phase 2 - Trenching	Rubber Tired Loaders	1	8.00	203	0.36
Phase 2 - Trenching	Off-Highway Trucks	1	8.00	402	0.38
Phase 2 - Trenching	Off-Highway Trucks	1	8.00	402	0.38
Phase 2 - Trenching	Off-Highway Trucks	2	8.00	350	0.38
Phase 3 - Construction/Pipe Installation/Backfilling	Excavators	1	8.00	158	0.38

Phase 3 - Construction/Pipe Installation/Backfilling	Cranes	1	8.00	231	0.29
Phase 3 - Construction/Pipe Installation/Backfilling	Rubber Tired Loaders	1	8.00	203	0.36
Phase 3 - Construction/Pipe Installation/Backfilling	Off-Highway Trucks	1	8.00	402	0.38
Phase 3 - Construction/Pipe Installation/Backfilling	Off-Highway Trucks	1	8.00	402	0.38
Phase 3 - Construction/Pipe Installation/Backfilling	Off-Highway Trucks	2	8.00	350	0.38
Phase 4 - Site Restoration	Excavators	1		158	0.38
Phase 4 - Site Restoration	Rubber Tired Loaders	1		203	0.36
Phase 4 - Site Restoration	Off-Highway Trucks	1		402	0.38
Phase 4 - Site Restoration	Plate Compactors	1		8	0.43
Phase 4 - Site Restoration	Off-Highway Trucks	1		402	0.38
Phase 4 - Site Restoration	Pavers	1	7.00	130	0.42
Phase 4 - Site Restoration	Rollers	1	7.00	80	0.38
Phase 4 - Site Restoration	Off-Highway Trucks	1		402	0.38
Phase 4 - Site Restoration	Off-Highway Trucks	2		350	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 - Site Prep and Demo	7	30.00	0.00	6.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 - Trenching	6	30.00	0.00	0.00	14.70	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Phase 3 - Construction/Pipe Inst	7	30.00	4.00	6.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Phase 4 - Site Restoration	10	30.00	0.00	6.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

3.2 Phase 1 - Site Prep and Demo - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6200e-003	0.0144	0.0111	3.0000e-005		5.7000e-004	5.7000e-004		5.3000e-004	5.3000e-004	0.0000	2.9533	2.9533	8.8000e-004	0.0000	2.9754
Total	**1.6200e-003**	**0.0144**	**0.0111**	**3.0000e-005**	**0.0000**	**5.7000e-004**	**5.7000e-004**	**0.0000**	**5.3000e-004**	**5.3000e-004**	**0.0000**	**2.9533**	**2.9533**	**8.8000e-004**	**0.0000**	**2.9754**

3.2 Phase 1 - Site Prep and Demo - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.0000e-004	1.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2251	0.2251	2.0000e-005	0.0000	0.2256
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1435	0.1435	0.0000	0.0000	0.1436
Total	**8.0000e-005**	**8.5000e-004**	**7.0000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**2.2000e-004**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.3686**	**0.3686**	**2.0000e-005**	**0.0000**	**0.3691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6200e-003	0.0144	0.0111	3.0000e-005		5.7000e-004	5.7000e-004		5.3000e-004	5.3000e-004	0.0000	2.9533	2.9533	8.8000e-004	0.0000	2.9754
Total	**1.6200e-003**	**0.0144**	**0.0111**	**3.0000e-005**	**0.0000**	**5.7000e-004**	**5.7000e-004**	**0.0000**	**5.3000e-004**	**5.3000e-004**	**0.0000**	**2.9533**	**2.9533**	**8.8000e-004**	**0.0000**	**2.9754**

3.2 Phase 1 - Site Prep and Demo - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.0000e-004	1.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2251	0.2251	2.0000e-005	0.0000	0.2256
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1435	0.1435	0.0000	0.0000	0.1436
Total	**8.0000e-005**	**8.5000e-004**	**7.0000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**2.2000e-004**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.3686**	**0.3686**	**2.0000e-005**	**0.0000**	**0.3691**

3.3 Phase 2 - Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4300e-003	0.0129	9.2200e-003	3.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	2.6845	2.6845	8.7000e-004	0.0000	2.7062
Total	**1.4300e-003**	**0.0129**	**9.2200e-003**	**3.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**2.6845**	**2.6845**	**8.7000e-004**	**0.0000**	**2.7062**

3.3 Phase 2 - Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1435	0.1435	0.0000	0.0000	0.1436
Total	**6.0000e-005**	**5.0000e-005**	**5.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1435**	**0.1435**	**0.0000**	**0.0000**	**0.1436**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4300e-003	0.0129	9.2200e-003	3.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	2.6844	2.6844	8.7000e-004	0.0000	2.7062
Total	**1.4300e-003**	**0.0129**	**9.2200e-003**	**3.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**2.6844**	**2.6844**	**8.7000e-004**	**0.0000**	**2.7062**

3.3 Phase 2 - Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1435	0.1435	0.0000	0.0000	0.1436
Total	**6.0000e-005**	**5.0000e-005**	**5.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1435**	**0.1435**	**0.0000**	**0.0000**	**0.1436**

3.4 Phase 3 - Construction/Pipe Installation/Backfilling - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6300e-003	0.0153	0.0102	3.0000e-005		5.8000e-004	5.8000e-004		5.3000e-004	5.3000e-004	0.0000	2.9245	2.9245	9.5000e-004	0.0000	2.9482
Total	**1.6300e-003**	**0.0153**	**0.0102**	**3.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**2.9245**	**2.9245**	**9.5000e-004**	**0.0000**	**2.9482**

3.4 Phase 3 - Construction/Pipe Installation/Backfilling - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.0000e-004	1.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2251	0.2251	2.0000e-005	0.0000	0.2256
Vendor	1.0000e-005	1.9000e-004	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0486	0.0486	0.0000	0.0000	0.0486
Worker	6.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1435	0.1435	0.0000	0.0000	0.1436
Total	**9.0000e-005**	**1.0400e-003**	**7.5000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.3000e-004**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.4172**	**0.4172**	**2.0000e-005**	**0.0000**	**0.4178**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6300e-003	0.0153	0.0102	3.0000e-005		5.8000e-004	5.8000e-004		5.3000e-004	5.3000e-004	0.0000	2.9245	2.9245	9.5000e-004	0.0000	2.9482
Total	**1.6300e-003**	**0.0153**	**0.0102**	**3.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**2.9245**	**2.9245**	**9.5000e-004**	**0.0000**	**2.9482**

3.4 Phase 3 - Construction/Pipe Installation/Backfilling - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.0000e-004	1.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2251	0.2251	2.0000e-005	0.0000	0.2256
Vendor	1.0000e-005	1.9000e-004	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0486	0.0486	0.0000	0.0000	0.0486
Worker	6.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1435	0.1435	0.0000	0.0000	0.1436
Total	**9.0000e-005**	**1.0400e-003**	**7.5000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.3000e-004**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.4172**	**0.4172**	**2.0000e-005**	**0.0000**	**0.4178**

3.5 Phase 4 - Site Restoration - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8000e-004	3.9100e-003	4.1400e-003	1.0000e-005		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.5564	0.5564	1.8000e-004	0.0000	0.5609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8000e-004**	**3.9100e-003**	**4.1400e-003**	**1.0000e-005**		**2.1000e-004**	**2.1000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**0.5564**	**0.5564**	**1.8000e-004**	**0.0000**	**0.5609**

3.5 Phase 4 - Site Restoration - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.0000e-004	1.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2251	0.2251	2.0000e-005	0.0000	0.2256
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2870	0.2870	1.0000e-005	0.0000	0.2872
Total	**1.4000e-004**	**8.9000e-004**	**1.2300e-003**	**0.0000**	**3.8000e-004**	**0.0000**	**3.8000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.5121**	**0.5121**	**3.0000e-005**	**0.0000**	**0.5127**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8000e-004	3.9100e-003	4.1400e-003	1.0000e-005		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.5564	0.5564	1.8000e-004	0.0000	0.5609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8000e-004**	**3.9100e-003**	**4.1400e-003**	**1.0000e-005**		**2.1000e-004**	**2.1000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**0.5564**	**0.5564**	**1.8000e-004**	**0.0000**	**0.5609**

3.5 Phase 4 - Site Restoration - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.0000e-004	1.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2251	0.2251	2.0000e-005	0.0000	0.2256
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2870	0.2870	1.0000e-005	0.0000	0.2872
Total	**1.4000e-004**	**8.9000e-004**	**1.2300e-003**	**0.0000**	**3.8000e-004**	**0.0000**	**3.8000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.5121**	**0.5121**	**3.0000e-005**	**0.0000**	**0.5127**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.552111	0.043066	0.201891	0.118512	0.015605	0.005863	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.0000e-005	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	6.0000e-005	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

DC Tillman Diversion Construction

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.15	Acre	0.15	6,534.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2022
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

DC Tillman Diversion Construction - South Coast Air Basin, Summer

Project Characteristics -

Land Use - Approximately 0.15 acres of disturbance for installation of diversion facilities.

Construction Phase - Construction schedule per Table 2-3 of CEQA Document

Off-road Equipment - Equipment per Table 2-3 of CEQA document.

Off-road Equipment - Equipment per table 2-3 of CEQA Dcoument

Off-road Equipment - Equipment per Table 2-3 of CEQA Document

Off-road Equipment - Equipment per Table 2-3 of CEQA Document

Trips and VMT - Trips per Table 2-4 of CEQA Document

Vehicle Trips - No operation emissions associated with Project

Fleet Mix -

Road Dust - No operation emissions associated with Project

Area Coating - No architectural coating

Water And Wastewater - No operational emissions associated with Project

Solid Waste - No operation emissions associated with Project

Construction Off-road Equipment Mitigation - Project incorporates dust control measures and site restoration as part of the Project.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	0
tblAreaCoating	Area_EF_Nonresidential_Interior	100	0
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_EF_Residential_Exterior	50	0
tblAreaCoating	Area_EF_Residential_Interior	50	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	5.00	2.00
tblOffRoadEquipment	HorsePower	402.00	350.00
tblOffRoadEquipment	HorsePower	402.00	350.00

tblOffRoadEquipment	HorsePower	402.00	350.00
tblOffRoadEquipment	HorsePower	402.00	350.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators

tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Pavers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	UsageHours	4.00	8.00
tblRoadDust	MeanVehicleSpeed	40	0
tblRoadDust	RoadSiltLoading	0.1	0
tblSolidWaste	SolidWasteGenerationRate	0.01	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	6.00

tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	VendorTripNumber	1.00	4.00
tblTripsAndVMT	WorkerTripNumber	18.00	30.00
tblTripsAndVMT	WorkerTripNumber	15.00	30.00
tblTripsAndVMT	WorkerTripNumber	3.00	30.00
tblTripsAndVMT	WorkerTripNumber	25.00	30.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	OutdoorWaterUseRate	178,722.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.4343	32.5790	23.5913	0.0755	0.4657	1.1606	1.6263	0.1250	1.0679	1.1930	0.0000	7,387.8119	7,387.8119	2.1361	0.0000	7,441.2151
Maximum	**3.4343**	**32.5790**	**23.5913**	**0.0755**	**0.4657**	**1.1606**	**1.6263**	**0.1250**	**1.0679**	**1.1930**	**0.0000**	**7,387.8119**	**7,387.8119**	**2.1361**	**0.0000**	**7,441.2151**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.4343	32.5790	23.5913	0.0755	0.4657	1.1606	1.6263	0.1250	1.0679	1.1930	0.0000	7,387.8119	7,387.8119	2.1361	0.0000	7,441.2151
Maximum	**3.4343**	**32.5790**	**23.5913**	**0.0755**	**0.4657**	**1.1606**	**1.6263**	**0.1250**	**1.0679**	**1.1930**	**0.0000**	**7,387.8119**	**7,387.8119**	**2.1361**	**0.0000**	**7,441.2151**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.4000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		3.0000e-005	3.0000e-005	0.0000		3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.4000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		3.0000e-005	3.0000e-005	0.0000		3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 - Site Prep and Demo	Site Preparation	10/1/2021	10/1/2021	5	1	
2	Phase 2 - Trenching	Trenching	10/4/2021	10/4/2021	5	1	
3	Phase 3 - Construction/Pipe Installation/Backfilling	Building Construction	10/5/2021	10/5/2021	5	1	
4	Phase 4 - Site Restoration	Paving	10/6/2021	10/7/2021	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 - Site Prep and Demo	Excavators	1	8.00	158	0.38
Phase 1 - Site Prep and Demo	Rubber Tired Loaders	1	8.00	203	0.36
Phase 1 - Site Prep and Demo	Concrete/Industrial Saws	1	8.00	81	0.73
Phase 1 - Site Prep and Demo	Off-Highway Trucks	1	8.00	402	0.38
Phase 1 - Site Prep and Demo	Off-Highway Trucks	1	8.00	402	0.38
Phase 1 - Site Prep and Demo	Off-Highway Trucks	2	8.00	350	0.38

Phase 2 - Trenching	Excavators	1	8.00	158	0.38
Phase 2 - Trenching	Rubber Tired Loaders	1	8.00	203	0.36
Phase 2 - Trenching	Off-Highway Trucks	1	8.00	402	0.38
Phase 2 - Trenching	Off-Highway Trucks	1	8.00	402	0.38
Phase 2 - Trenching	Off-Highway Trucks	2	8.00	350	0.38
Phase 3 - Construction/Pipe Installation/Backfilling	Excavators	1	8.00	158	0.38
Phase 3 - Construction/Pipe Installation/Backfilling	Cranes	1	8.00	231	0.29
Phase 3 - Construction/Pipe Installation/Backfilling	Rubber Tired Loaders	1	8.00	203	0.36
Phase 3 - Construction/Pipe Installation/Backfilling	Off-Highway Trucks	1	8.00	402	0.38
Phase 3 - Construction/Pipe Installation/Backfilling	Off-Highway Trucks	1	8.00	402	0.38
Phase 3 - Construction/Pipe Installation/Backfilling	Off-Highway Trucks	2	8.00	350	0.38
Phase 4 - Site Restoration	Excavators	1		158	0.38
Phase 4 - Site Restoration	Rubber Tired Loaders	1		203	0.36
Phase 4 - Site Restoration	Off-Highway Trucks	1		402	0.38
Phase 4 - Site Restoration	Plate Compactors	1		8	0.43
Phase 4 - Site Restoration	Off-Highway Trucks	1		402	0.38
Phase 4 - Site Restoration	Pavers	1	7.00	130	0.42
Phase 4 - Site Restoration	Rollers	1	7.00	80	0.38
Phase 4 - Site Restoration	Off-Highway Trucks	1		402	0.38
Phase 4 - Site Restoration	Off-Highway Trucks	2		350	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 - Site Prep and Demo	7	30.00	0.00	6.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 - Trenching	6	30.00	0.00	0.00	14.70	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Phase 3 - Construction/Pipe Inst	7	30.00	4.00	6.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Phase 4 - Site Restoration	10	30.00	0.00	6.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

3.2 Phase 1 - Site Prep and Demo - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	3.2381	28.8754	22.1213	0.0674		1.1335	1.1335		1.0566	1.0566		6,510.8564	6,510.8564	1.9485		6,559.5683
Total	**3.2381**	**28.8754**	**22.1213**	**0.0674**	**0.0000**	**1.1335**	**1.1335**	**0.0000**	**1.0566**	**1.0566**		**6,510.8564**	**6,510.8564**	**1.9485**		**6,559.5683**

3.2 Phase 1 - Site Prep and Demo - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.5557	0.3436	4.6000e-003	0.1048	4.8500e-003	0.1097	0.0287	4.6400e-003	0.0334		499.9581	499.9581	0.0352		500.8390
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1256	0.0819	1.1264	3.3300e-003	0.3353	2.4800e-003	0.3378	0.0889	2.2900e-003	0.0912		332.0695	332.0695	8.9500e-003		332.2932
Total	**0.1712**	**1.6376**	**1.4701**	**7.9300e-003**	**0.4401**	**7.3300e-003**	**0.4475**	**0.1177**	**6.9300e-003**	**0.1246**		**832.0276**	**832.0276**	**0.0442**		**833.1323**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	3.2381	28.8754	22.1213	0.0674		1.1335	1.1335		1.0566	1.0566	0.0000	6,510.8564	6,510.8564	1.9485		6,559.5683
Total	**3.2381**	**28.8754**	**22.1213**	**0.0674**	**0.0000**	**1.1335**	**1.1335**	**0.0000**	**1.0566**	**1.0566**	**0.0000**	**6,510.8564**	**6,510.8564**	**1.9485**		**6,559.5683**

3.2 Phase 1 - Site Prep and Demo - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.5557	0.3436	4.6000e-003	0.1048	4.8500e-003	0.1097	0.0287	4.6400e-003	0.0334		499.9581	499.9581	0.0352		500.8390
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1256	0.0819	1.1264	3.3300e-003	0.3353	2.4800e-003	0.3378	0.0889	2.2900e-003	0.0912		332.0695	332.0695	8.9500e-003		332.2932
Total	**0.1712**	**1.6376**	**1.4701**	**7.9300e-003**	**0.4401**	**7.3300e-003**	**0.4475**	**0.1177**	**6.9300e-003**	**0.1246**		**832.0276**	**832.0276**	**0.0442**		**833.1323**

3.3 Phase 2 - Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8532	25.8375	18.4472	0.0611		0.9604	0.9604		0.8835	0.8835		5,918.1918	5,918.1918	1.9141		5,966.0433
Total	**2.8532**	**25.8375**	**18.4472**	**0.0611**		**0.9604**	**0.9604**		**0.8835**	**0.8835**		**5,918.1918**	**5,918.1918**	**1.9141**		**5,966.0433**

3.3 Phase 2 - Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1256	0.0819	1.1264	3.3300e-003	0.3353	2.4800e-003	0.3378	0.0889	2.2900e-003	0.0912		332.0695	332.0695	8.9500e-003		332.2932
Total	**0.1256**	**0.0819**	**1.1264**	**3.3300e-003**	**0.3353**	**2.4800e-003**	**0.3378**	**0.0889**	**2.2900e-003**	**0.0912**		**332.0695**	**332.0695**	**8.9500e-003**		**332.2932**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8532	25.8375	18.4472	0.0611		0.9604	0.9604		0.8835	0.8835	0.0000	5,918.1918	5,918.1918	1.9141		5,966.0433
Total	**2.8532**	**25.8375**	**18.4472**	**0.0611**		**0.9604**	**0.9604**		**0.8835**	**0.8835**	**0.0000**	**5,918.1918**	**5,918.1918**	**1.9141**		**5,966.0433**

3.3 Phase 2 - Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1256	0.0819	1.1264	3.3300e-003	0.3353	2.4800e-003	0.3378	0.0889	2.2900e-003	0.0912		332.0695	332.0695	8.9500e-003		332.2932
Total	**0.1256**	**0.0819**	**1.1264**	**3.3300e-003**	**0.3353**	**2.4800e-003**	**0.3378**	**0.0889**	**2.2900e-003**	**0.0912**		**332.0695**	**332.0695**	**8.9500e-003**		**332.2932**

3.4 Phase 3 - Construction/Pipe Installation/Backfilling - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2519	30.5583	20.3383	0.0666		1.1525	1.1525		1.0603	1.0603		6,447.4868	6,447.4868	2.0853		6,499.6180
Total	**3.2519**	**30.5583**	**20.3383**	**0.0666**		**1.1525**	**1.1525**		**1.0603**	**1.0603**		**6,447.4868**	**6,447.4868**	**2.0853**		**6,499.6180**

3.4 Phase 3 - Construction/Pipe Installation/Backfilling - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.5557	0.3436	4.6000e-003	0.1048	4.8500e-003	0.1097	0.0287	4.6400e-003	0.0334		499.9581	499.9581	0.0352		500.8390
Vendor	0.0113	0.3831	0.0930	1.0100e-003	0.0256	7.8000e-004	0.0264	7.3700e-003	7.5000e-004	8.1200e-003		108.2975	108.2975	6.7000e-003		108.4649
Worker	0.1256	0.0819	1.1264	3.3300e-003	0.3353	2.4800e-003	0.3378	0.0889	2.2900e-003	0.0912		332.0695	332.0695	8.9500e-003		332.2932
Total	**0.1824**	**2.0207**	**1.5631**	**8.9400e-003**	**0.4657**	**8.1100e-003**	**0.4738**	**0.1250**	**7.6800e-003**	**0.1327**		**940.3251**	**940.3251**	**0.0509**		**941.5972**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2519	30.5583	20.3383	0.0666		1.1525	1.1525		1.0603	1.0603	0.0000	6,447.4868	6,447.4868	2.0853		6,499.6180
Total	**3.2519**	**30.5583**	**20.3383**	**0.0666**		**1.1525**	**1.1525**		**1.0603**	**1.0603**	**0.0000**	**6,447.4868**	**6,447.4868**	**2.0853**		**6,499.6180**

3.4 Phase 3 - Construction/Pipe Installation/Backfilling - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.5557	0.3436	4.6000e-003	0.1048	4.8500e-003	0.1097	0.0287	4.6400e-003	0.0334		499.9581	499.9581	0.0352		500.8390
Vendor	0.0113	0.3831	0.0930	1.0100e-003	0.0256	7.8000e-004	0.0264	7.3700e-003	7.5000e-004	8.1200e-003		108.2975	108.2975	6.7000e-003		108.4649
Worker	0.1256	0.0819	1.1264	3.3300e-003	0.3353	2.4800e-003	0.3378	0.0889	2.2900e-003	0.0912		332.0695	332.0695	8.9500e-003		332.2932
Total	**0.1824**	**2.0207**	**1.5631**	**8.9400e-003**	**0.4657**	**8.1100e-003**	**0.4738**	**0.1250**	**7.6800e-003**	**0.1327**		**940.3251**	**940.3251**	**0.0509**		**941.5972**

3.5 Phase 4 - Site Restoration - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3768	3.9082	4.1385	6.3300e-003		0.2102	0.2102		0.1934	0.1934		613.3367	613.3367	0.1984		618.2958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3768**	**3.9082**	**4.1385**	**6.3300e-003**		**0.2102**	**0.2102**		**0.1934**	**0.1934**		**613.3367**	**613.3367**	**0.1984**		**618.2958**

3.5 Phase 4 - Site Restoration - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0228	0.7778	0.1718	2.3000e-003	0.0524	2.4200e-003	0.0548	0.0144	2.3200e-003	0.0167		249.9791	249.9791	0.0176		250.4195
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1256	0.0819	1.1264	3.3300e-003	0.3353	2.4800e-003	0.3378	0.0889	2.2900e-003	0.0912		332.0695	332.0695	8.9500e-003		332.2932
Total	**0.1484**	**0.8597**	**1.2982**	**5.6300e-003**	**0.3877**	**4.9000e-003**	**0.3926**	**0.1033**	**4.6100e-003**	**0.1079**		**582.0486**	**582.0486**	**0.0266**		**582.7127**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3768	3.9082	4.1385	6.3300e-003		0.2102	0.2102		0.1934	0.1934	0.0000	613.3367	613.3367	0.1984		618.2958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3768**	**3.9082**	**4.1385**	**6.3300e-003**		**0.2102**	**0.2102**		**0.1934**	**0.1934**	**0.0000**	**613.3367**	**613.3367**	**0.1984**		**618.2958**

3.5 Phase 4 - Site Restoration - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0228	0.7778	0.1718	2.3000e-003	0.0524	2.4200e-003	0.0548	0.0144	2.3200e-003	0.0167		249.9791	249.9791	0.0176		250.4195
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1256	0.0819	1.1264	3.3300e-003	0.3353	2.4800e-003	0.3378	0.0889	2.2900e-003	0.0912		332.0695	332.0695	8.9500e-003		332.2932
Total	**0.1484**	**0.8597**	**1.2982**	**5.6300e-003**	**0.3877**	**4.9000e-003**	**0.3926**	**0.1033**	**4.6100e-003**	**0.1079**		**582.0486**	**582.0486**	**0.0266**		**582.7127**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.552111	0.043066	0.201891	0.118512	0.015605	0.005863	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

5.2 Energy by Land Use - NaturalGas

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		3.0000e-005	3.0000e-005	0.0000		3.0000e-005
Unmitigated	3.4000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		3.0000e-005	3.0000e-005	0.0000		3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		3.0000e-005	3.0000e-005	0.0000		3.0000e-005
Total	**3.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.0000e-005**	**3.0000e-005**	**0.0000**		**3.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		3.0000e-005	3.0000e-005	0.0000		3.0000e-005
Total	**3.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.0000e-005**	**3.0000e-005**	**0.0000**		**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation