



# NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT

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**DATE:** August 2, 2019

**TO:** Responsible Agencies, Trustee Agencies, Interested Parties

**LEAD AGENCY:** Irvine Ranch Water District

**PROJECT TITLE:** Syphon Reservoir Improvement Project

**PUBLIC REVIEW PERIOD:** August 2, 2019 through September 16, 2019

This Notice of Preparation (NOP) has been prepared to notify agencies and interested parties that Irvine Ranch Water District (IRWD), as the lead agency, will prepare an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) for the Syphon Reservoir Improvement Project (proposed project). The proposed project would increase the capacity of the existing recycled water reservoir to serve the community's seasonal and future water needs. As a part of the reservoir expansion, the existing engineered dam would be replaced with a new engineered dam that would meet and exceed the latest safety standards. The new engineered dam would increase the reservoir capacity from approximately 500 acre-feet (AF) to 5,000 AF.

Recycled water is vital to the community, serving as a reliable, affordable and drought-proof source in IRWD's water supply portfolio. Recycled water is used for irrigation, cooling office buildings, flushing toilets, mixing concrete, fighting regional wildfires and other industrial uses. By making more recycled water available to the community, the proposed project would reduce IRWD's dependence on costly imported water and make the community more self-sufficient. Additional information about the proposed project and a discussion of potential environmental impacts are included in **Attachment A** to this NOP.

**PROJECT LOCATION:** The proposed project would be built within the IRWD service area at the site of the existing Syphon Reservoir, which is currently a recycled water storage reservoir. Syphon Reservoir is located in unincorporated County of Orange, California, on the northeast side of Portola Parkway between Bee Canyon Access Road and State Route 133 (SR-133), where the majority of the property bounded by these thoroughfares is owned by IRWD (see **Figure 1**).

**PUBLIC REVIEW AND COMMENTS:** IRWD is soliciting comments from responsible and trustee agencies as well as interested parties as to the scope and content of the environmental information to be included in the EIR. In accordance with CEQA, agencies are requested to review the project description provided in this NOP and provide comments on environmental issues related to the statutory responsibilities of the agency. The EIR will be used by IRWD when considering approval of the proposed project as well as any related discretionary approvals. All comments to the NOP are due no later than

**4:00 p.m. on September 16, 2019.** Please send your comments to the mailing address or email address shown below. Include a return address or email address and a contact name for your agency or party with your comments.

**CONTACT PERSON:** Irvine Ranch Water District  
Water Resources & Policy Department  
15600 Sand Canyon Avenue  
P.O. Box 57000  
Irvine, California 92619-7000  
Attn: Jo Ann Corey, Environmental Compliance Specialist  
SyphonEIR@irwd.com  
Phone: 949-453-5300

**DOCUMENT AVAILABILITY:** Copies of the NOP are available at the Heritage Park Library, 14361 Yale Ave, Irvine CA 92604; and online at the IRWD Web Site (<http://www.irwd.com/doing-business/environmental-documents>).

**SCOPING MEETING:** IRWD will hold a public meeting to receive comments and suggestions about the issues to be included in the EIR. The scoping meeting will include a brief presentation, providing an overview of the proposed project. After the presentation, public comments will be accepted either orally or in writing at the scoping meeting. Comment forms will be supplied for those who wish to submit comments in writing at the scoping meeting; written comments may also be submitted anytime during the 45-day NOP review period. The scoping meeting will be held as follows:

**Wednesday, August 21, 2019, 6:00 p.m.**  
Irvine Ranch Water District  
Multi-Purpose Conference Room  
15600 Sand Canyon Avenue  
Irvine, California 92618



SOURCE: ESRI, 2016; OC LAFCO, 2018

IRWD Syphon Reservoir Improvement Project

**Figure 1**  
Project Location

# ATTACHMENT A

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## Introduction

Irvine Ranch Water District (IRWD), as the lead agency pursuant to CEQA, is proposing to implement the Syphon Reservoir Improvement Project (proposed project). The proposed project would increase the capacity of the existing Syphon Reservoir and replace the existing engineered dam with a new and larger engineered dam that would meet and exceed the latest safety standards. The proposed project would be able to store additional recycled water to meet the seasonal demand of customers and will enhance IRWD's water supply reliability.

## Project Background

### District Overview

Established in 1961 as a California Water District under the provisions of the State of California Water Code, IRWD is a non-profit, independent special district serving central Orange County, California. IRWD provides drinking water, reliable sewage collection and treatment, recycled water and urban runoff treatment to approximately 422,000 residents. As an independent public agency, IRWD is governed by a five-member publicly-elected Board of Directors that are responsible for the District's policies and decision-making. Day-to-day operations are supervised by the General Manager and District staff.

IRWD has a diverse water supply that includes local groundwater, recycled water, imported water, and local surface water. Approximately 54 percent of the IRWD water supply comes from 26 local groundwater wells in the Orange County Groundwater Basin; approximately 18 percent of the District's water supply is imported from the Metropolitan Water District of Southern California (MWD); and roughly 26 percent of the District's water demands are met with recycled water. IRWD produces recycled water at its Michelson Water Recycling Plant (WRP) located in Irvine, CA and at its Los Alisos WRP located in Lake Forest, CA. Recycled water is provided to customers primarily for irrigation of public landscaping such as street medians, parks and golf courses as well as agricultural irrigation. It is also used in industrial processes such as mixing concrete, office building uses such as toilet flushing and cooling towers, as well as for firefighting. When recycled water production exceeds seasonal demands, recycled water is stored at Syphon Reservoir, as well as other recycled water storage reservoirs operated by IRWD, including San Joaquin, Rattlesnake, and Sand Canyon Reservoirs.

### Existing Syphon Reservoir

The existing Syphon Reservoir is formed by a 59-foot high, engineered dam with a crest width of approximately 12-feet. An engineered dam is built by compacting successive layers of earth, using the most impervious materials. Syphon Reservoir was constructed in 1949 and was acquired by IRWD in 2010 from the Irvine Company, which previously used the reservoir to store water for agricultural irrigation. In 2012, IRWD converted the facilities at Syphon Reservoir for storage of recycled water, by adding strainer and disinfection facilities, as well as constructing a pipeline and pump station to connect the reservoir to IRWD's existing recycled water distribution system.

The tertiary-treated recycled water stored in the Syphon Reservoir originates from IRWD's Michelson WRP. Recycled water is currently conveyed to the Syphon Reservoir via a portion of the Highline Canal

from IRWD's Rattlesnake Reservoir into Syphon Reservoir. Syphon Reservoir's existing outlet facilities include a series of underground pipes that convey flows through the strainer and disinfection facilities and then to IRWD's recycled water system for distribution to customers. Alternatively, the existing reservoir can be drawn down through an existing 48-inch pipeline that discharges to the storm drain at Portola Parkway (see **Figure 1** and **Figure 2**).

IRWD directly controls the water into and out of Syphon Reservoir and can lower the water surface to allow for storage of minor amounts of runoff during storm events. The reservoir does not receive water from rivers or streams. The existing reservoir also includes a spillway structure that protects the dam from overtopping by conveying recycled water to the existing storm drain in Portola Parkway. The reservoir includes a small watershed that is not capable of generating significant amounts of runoff that need to be managed through the use of the spillway.

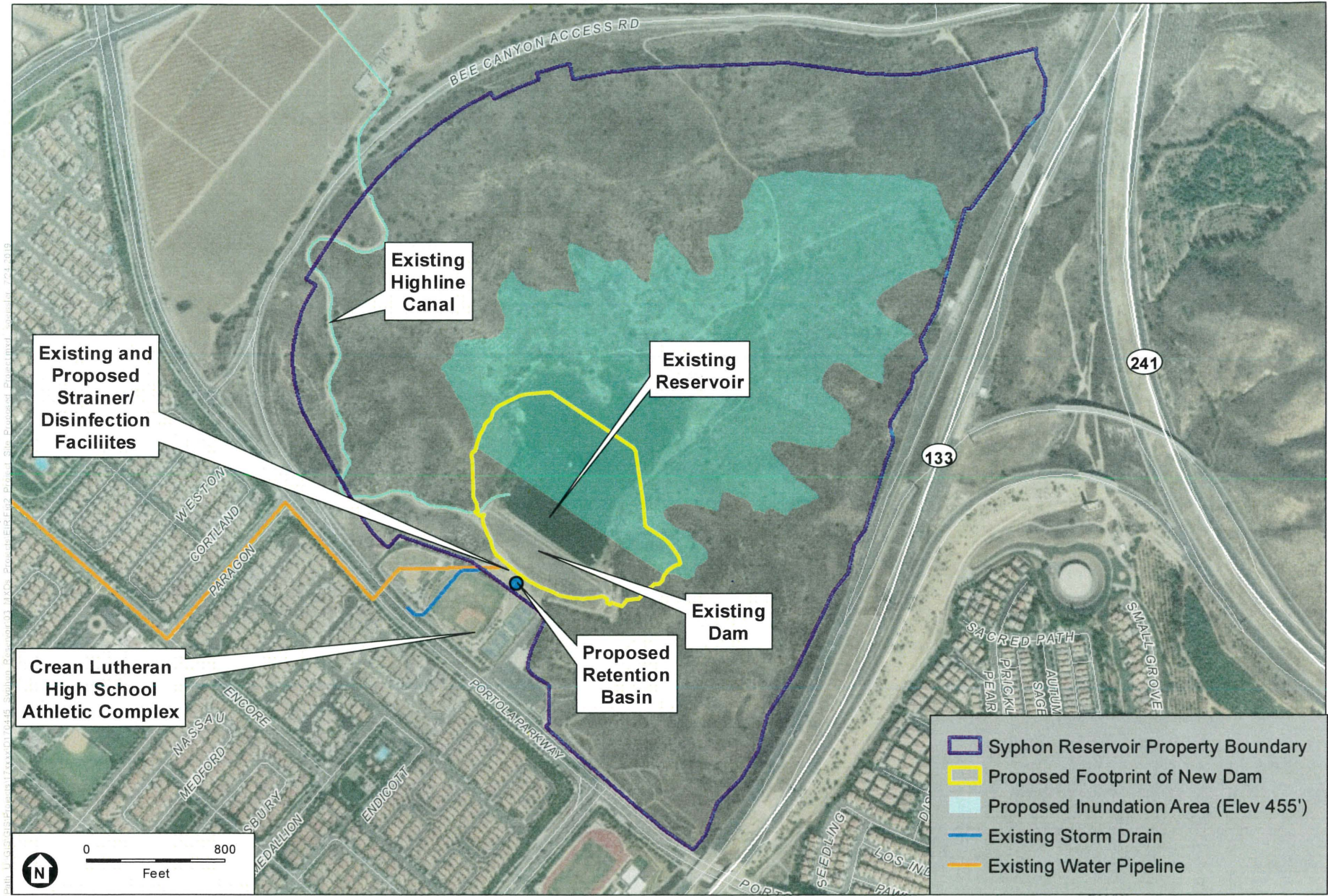
## **Project Location**

The proposed project would be constructed within the IRWD service area at the site of the existing Syphon Reservoir, which is located on the northeast side of Portola Parkway between Bee Canyon Access Road and State Route 133 (SR-133) in the County of Orange (see **Figure 1** and **Figure 2**). IRWD owns the majority of the property bounded by these thoroughfares. Crean Lutheran High School's Athletic Complex is located between Portola Parkway and the toe of the existing dam. Residential neighborhoods are located on the southwest side of Portola Parkway. The ground surrounding the reservoir, which dominates the Syphon site, is hilly with ridgelines and terraced slopes. Ground surface elevations at the site range from about 675 feet above mean sea level (amsl) in the northeast corner to about 319 feet amsl at Portola Parkway immediately downstream of the existing reservoir. Syphon Reservoir is surrounded by sensitive upland and wetland vegetation communities that are protected under local, state and federal environmental regulatory requirements, as well as school recreation facilities and residential neighborhoods.

The Syphon Reservoir is located within the Central and Coastal Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) and is included as an operating reservoir allowed within the NCCP/HCP Reserve. Implementation of expanded seasonal storage for recycled water purposes was anticipated and identified as a permitted use in the NCCP/HCP.

## **Project Purpose and Objectives**

The purpose of the proposed project is to increase the recycled water storage capacity of Syphon Reservoir by replacing and enlarging the existing reservoir facilities to meet the seasonal demands of recycled water customers and to enhance IRWD's water supply reliability. Currently, once IRWD's existing recycled water storage reservoirs are filled to capacity in winter months, IRWD sewage is either diverted around the Michelson WRP to the Orange County Sanitation District (OCSD) or recycled water produced at the Michelson WRP is discharged to the ocean. During peak summer months, IRWD is left short of recycled water to meet the demands of IRWD's recycled water customers and IRWD must then purchase costly supplemental imported water from MWD.



Path: U:\GIS\Projects\ESRI\Map2\Map2\_Prompts\Fig2\_Prompts\_Site\_Prompts\_Prompts.mxd, Layer: 724, 2018

SOURCE: ESRI, 2016

IRWD Syphon Reservoir Improvement Project  
**Figure 2**  
 Project Site and Proposed Project



Based on projected demands and supplies, IRWD estimates that it will need an additional 4,500 AF of recycled water seasonal storage capacity by the year 2030. The expansion of Syphon Reservoir would allow the storage of recycled water that is currently lost to the ocean or that could have been produced at Michelson WRP absent any diversion of sewage to OCSD. The additional stored recycled water could then be used to meet the projected seasonal recycled water demands within IRWD's service area.

The proposed project would allow the storage of additional recycled water produced at the Michelson WRP during periods of low demand (winter months) for use during periods of high demand (summer months). The expansion of the reservoir's storage capacity from the current 500 AF to approximately 5,000 AF would help IRWD become more self-sufficient by reducing its dependence on costly and less reliable imported water during summer months, and support the increased use of recycled water for public landscaping, agricultural, business and industrial uses. Increased use of recycled water for these non-drinking water purposes would make more drinking water available to the region to better withstand future water shortages. The recycled water available for use by IRWD's customers as a result of the proposed project would not be subject to water shortages and would therefore increase IRWD's water supply reliability.

The objectives of the proposed project are as follows:

- Improve local water supply reliability by reducing the need to purchase less reliable imported water from MWD by storing and using additional recycled water;
- Reduce diversions of sewage to OCSD;
- Promote additional recycling of water while reducing effluent discharges to the ocean; and
- Ensure the new dam and reservoir continue to meet or exceed the latest safety standards, including the standards of the California Department of Water Resources (DWR), Division of Safety of Dams requirements (DSOD).

## Project Components

### Dam Replacement

The proposed project would involve replacement of the existing 59-foot high engineered dam with a new 136-foot high engineered dam with a 20-foot wide crest. The new dam would be constructed primarily from on-site impermeable materials, although the importation of some specialty materials is anticipated. During removal of the existing dam, materials would be stockpiled for reuse to the extent feasible. In addition, new borrow areas would be identified onsite, where material would be excavated for use as fill for the new dam. IRWD recently approved the Syphon Reservoir Geotechnical Investigations Project, which will be completed prior to designing the proposed new dam. The Geotechnical Investigations Project will help to determine the amount and type of specialty materials that would need to be imported to the site, as well as help to define the limits of disturbance to minimize impacts. The total volume of all materials comprising the dam would be approximately 2.3 million cubic yards.

The new reservoir would include the same small watershed as the existing reservoir and would not be capable of generating significant amounts of runoff that would need to be managed through the use of the spillway. Similar to the existing dam, it is a requirement of DSOD that a spillway be included with the new dam to protect the dam from overtopping. The new spillway would be constructed and lined with reinforced concrete to prevent erosion of the abutment and embankment materials. The spillway would be

designed to meet and exceed the latest safety standards. Flows through the spillway would discharge into a channel lined with grouted rip-rap (concrete grout placed in void spaces between rip-rap pieces), and then into a partially below-grade retention basin designed to dissipate the energy of the flow. Water would exit the retention basin into the existing 48-inch pipeline to the storm drain at Portola Parkway.

Slope protection for the new dam would consist of rip-rap on the upstream slope and vegetation on the downstream slope. The rip-rap on the upstream slope would provide erosion protection from small wave action resulting from water in the reservoir. The vegetation on the downstream slope would provide erosion protection from rainfall runoff.

## **Reservoir Enlargement**

The replacement dam would result in an increase in the reservoir's maximum water surface elevation from 376 feet amsl to 456 feet amsl and increase the reservoir's capacity from approximately 500 AF to 5,000 AF. The proposed project would expand the reservoir's shoreline and inundate up to approximately 82 acres upstream of the dam that currently support upland and wetland vegetation communities, some of which are within the NCCP/HCP Reserve area and deed restricted lands. **Figure 2** shows the preliminary footprint of the proposed dam and reservoir inundation area.

Similar to existing operations, with implementation of the proposed project, water levels at Syphon Reservoir would fluctuate seasonally. Water would be stored in winter when recycled water supplies exceed demands, and the reservoir would be drawn down in summer when demands exceeds supply. The estimated minimum operating capacity of the reservoir would be about 180 AF to maintain water quality.

IRWD would develop an annual operating plan for the enlarged Syphon Reservoir to set targets for the volume of water to be contained in the reservoir on a daily, monthly, annual, or seasonal basis. Reservoir operations would vary with time and would need to consider a wide variety of factors, such as: seasonal storage needs, water quality considerations, rainfall projections, and operational compatibility with the IRWD recycled water system. Reservoir operations would be adjusted by IRWD during the year based on changes in projected demands and other factors.

## **Conveyance Facilities and Other Project Components**

The conveyance and inlet facilities that would deliver recycled water from the Michelson WRP to Syphon Reservoir are sufficiently sized to accommodate the proposed project and would not require modification. Under the proposed project, water would be delivered to Syphon Reservoir via an existing 36-inch recycled water pipeline and the Eastwood Recycled Water Pump Station, which is located off-site and currently under construction. The Highline Canal would be abandoned in place and no longer used to deliver water to Syphon Reservoir from Rattlesnake Reservoir.

As stated previously, Syphon Reservoir's existing outlet facilities include a series of underground pipes that convey flow through the strainer and disinfection facilities and then into IRWD's recycled water system for distribution to customers. In the event of an emergency, the existing reservoir can also be drawn down through an existing 48-inch pipeline that discharges to the existing storm drain in Portola Parkway (see **Figures 1 and 2**). Under normal operating conditions, all flow in or out of the reservoir would be conveyed through the existing 36-inch inlet/outlet pipeline. With the exception of the strainer and disinfection facilities, these existing outlet conveyance facilities are sufficiently sized to accommodate the proposed project and would not require modification (see **Figure 2**).



The expanded strainer and disinfection facilities would be relocated at the toe of future dam in the same general vicinity of the existing facility (see **Figure 2**) and would continue to use sodium hypochlorite to disinfect water stored in the reservoir. The new facility would also include sodium bisulfite storage and associated metering pumps to de-chlorinate the future inlet flow to Syphon Reservoir.

Other operational systems that would likely be part of the proposed project include (1) an internal seepage control system within the new dam; and (2) a circulation/aeration system for the enlarged reservoir. In addition, during project design, IRWD will consider recreational opportunities that may be compatible with the project site. Recreational opportunities that will be reviewed include public walking trails, potential restrooms, shade structure, benches, and interpretive signs.

## **Project Construction Schedule**

Construction of the proposed project is estimated to require approximately 36 months, depending on weather conditions and other variables. Construction is currently anticipated to begin in the fall of 2022.

## **Potential Environmental Impacts**

The EIR will assess and disclose the reasonably foreseeable direct, indirect, and cumulative impacts that would likely result from the construction and operation of the proposed project. Potential impacts to resources listed in Appendix G of the CEQA Guidelines, as amended on December 28, 2018, are summarized below. The EIR will identify mitigation measures if necessary to avoid, minimize, and offset potentially significant impacts of the project. The EIR also will describe the alternatives screening analysis conducted for the proposed project, and evaluate alternatives to the proposed project that would avoid, minimize, and offset potentially significant impacts of the project while attempting to meet the objectives of the proposed project.

### **Aesthetics**

The project area is not officially designated as a scenic vista; however, open space and conservation areas are considered important scenic resources within the County of Orange and the adjacent City of Irvine. Replacing the dam and enlarging the reservoir would alter the views of the project site from surrounding public vantage points, including the Crean Lutheran High School Athletic Complex immediately below the reservoir and the adjacent residential areas, parks, and roadways. Potential direct and indirect visual impacts could occur both during construction and after the reservoir is enlarged and infrastructure is built and operational. The EIR will identify the visible changes to scenic resources, scenic vistas, and visual character of the project area due to the reservoir enhancement and development of ancillary facilities associated with the proposed project within the viewshed. Further, the EIR will evaluate the potential increase in light and glare from the proposed project on motorists traveling along Portola Parkway, SR-133 and neighboring sensitive receptors.

### **Agriculture and Forestry Resources**

The project site includes the existing Syphon Reservoir and surrounding open space area. While the project site is zoned as General Agriculture by the County of Orange, the General Agricultural District allows for low-intensity uses that have predominantly open space character, such as Syphon Reservoir. The EIR will analyze the potential impacts of project implementation on farmland or forestry resources, as well as conflicts with zoning designations for such land uses.

## **Air Quality**

The project site is located within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Deconstruction of the existing reservoir and construction of a new reservoir and ancillary facilities would generate temporary emissions from construction equipment exhaust, earth movement, construction workers' commute, and material hauling. Operational activities associated with the proposed project could generate air pollutants from employee commuting, truck deliveries and operation of stationary equipment. The EIR will evaluate the generation of air pollutants during construction and operational activities associated within the proposed project. Conflicts or obstructions with the implementation of the SCAQMD Air Quality Plan will also be discussed in the EIR. Furthermore, the exposure of sensitive receptors to pollutant concentrations or other emissions such as odors will be analyzed.

## **Biological Resources**

Sensitive biological resources at the project site could be significantly affected by construction of the proposed project and the long-term seasonal water elevation changes that would result during operation of an enlarged reservoir. The EIR will evaluate the potential for construction and operation of the proposed project to affect biological resources and will discuss local ordinances, as well as state and federal regulations governing biological resources. In particular, consistency with the NCCP/HCP will be discussed in the EIR. Such analysis will incorporate updated spatial data from the California Natural Diversity Database, the proposed project's Biological Resources Technical Report, various surveys conducted at the project site for rare plants, natural communities, and special-status species, and will address recent changes to the status of federal and State listed species.

A large portion of the project site was previously used by the Transportation Corridor Agencies (TCA) for mitigation lands for impacts associated with the Eastern Transportation Corridor Project. When IRWD acquired Syphon Reservoir from the Irvine Company, the Conveyance Agreement included a Grant Deed with use restrictions that provide for the conservation of biological resources associated with that mitigation. The EIR will evaluate the impacts associated with biological resources within areas included in the Grant Deed. IRWD will continue ongoing consultation with both U.S. Fish and Wildlife Service and California Department of Fish and Wildlife regarding consistency with both the NCCP/HCP and the Grant Deed and appropriate mitigation. A modification to the Grant Deed could be pursued consistent with these consultations.

## **Cultural Resources**

The analysis included in the EIR will document and evaluate the existing dam and associated facilities, which would be deconstructed as part of the project. Constructed in 1949, the existing facilities are over 45 years of age and therefore meet the California Office of Historic Preservation's threshold for consideration as a historical resource. The proposed project also would include excavation activities that could uncover previously known or unknown historical or archaeological resources, or unknown human burial resources. The EIR will assess the potential effects on cultural resources in the project area as a result of the proposed dam replacement, reservoir enlargement and construction of ancillary facilities.

## **Energy**

The proposed project could require significant amounts of energy during construction and operation of the proposed facilities. The EIR will quantitatively evaluate energy demand from construction equipment, haul trucks, vendor trucks, and construction workers. The EIR will also quantify the Project's anticipated operational energy needs, including direct consumption of electricity to pump recycled water and fuel needed for maintenance operations. Any construction of new or expanded energy related facilities could result in environmental effects. The EIR will assess the potential impacts of the proposed project on energy use.

## **Geology and Soils**

The project site is located in a seismically active region. Active or potentially active faults that could potentially affect Syphon Reservoir include the San Joaquin Hills, Chino, Elsinore, Newport-Inglewood, Puente Hills, San Jacinto, and San Andreas faults; the closest is Puente Hills, which is located 4.3 miles away from the project site. Previous studies indicate that two faults are located within the project site, one of which runs directly beneath the existing reservoir and dam.<sup>1</sup> Neither fault is considered active or potentially active. The proximity of these faults places the project area at potential risk for geological hazards. IRWD recently approved the Syphon Reservoir Geotechnical Investigations Project, which will be completed prior to designing the proposed project. The Geotechnical Investigations Project will characterize the geologic and geotechnical conditions of the Syphon Reservoir site and verify the location and historic activity of the onsite faults. The Geotechnical Investigations Project will also help develop criteria for the proposed project that will be used to design for potential geologic hazards.

Construction and operation of the proposed project could be subject to potential seismic hazards including surface fault rupture, strong seismic shaking, soil liquefaction, and geologic hazards such as subsidence, soil erosion, ground collapse, and expansive soil. The EIR will evaluate the potential seismic and geologic hazards that could affect the proposed facilities. The proposed project and its appurtenant facilities would be designed to safely accommodate these potential hazards and the structures would meet and exceed the latest state and federal safety standards.

## **Greenhouse Gas Emissions**

In addition to air emissions, the proposed project would result in the emission of greenhouse gases from construction and operational activities. Construction activities could generate greenhouse gas emissions from equipment exhaust, construction workers' commutes, and material hauling. Operational activities could generate emissions from employee commuting, truck deliveries, and stationary equipment. The EIR will evaluate the contribution of construction and operational greenhouse gas emissions to global climate change. The EIR will evaluate the proposed project's consistency with state and local regulatory requirements and regulations.

## **Hazards and Hazardous Materials**

A database search of hazardous materials sites using the online Department of Toxic Substances Control's EnviroStor and State Water Resources Control Board (SWRCB) GeoTracker databases showed that Syphon Reservoir is not located on a hazardous materials site. However, construction activities associated with the proposed project could result in the release of hazardous materials. Additionally, the proposed disinfection facilities could result in use, storage and/or transport of potentially hazardous materials to and

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<sup>1</sup> GEI Consultants, Inc. 2012. Syphon Reservoir Expansion Engineering Feasibility Study, Constructability Analysis.

from the project site. The proposed project would be designed to safely store any potentially hazardous materials. The EIR will assess the potential for storing and transporting hazardous materials associated with the operation of proposed facilities, and the upset/accident condition involving the release of hazardous materials into the environment, including the emission of hazards within 0.25 mile of a school. Further, the proposed project may result in increased truck load intensities that could increase traffic and physically interfere with an adopted emergency response plan. The EIR will also evaluate the potential for interference with an adopted emergency response plan to occur and wildland fire threats due to project implementation.

## **Hydrology and Water Quality**

The proposed project may change local drainage patterns at the project site, which could impact water quality, volume, and surface runoff, as well as groundwater resources. The EIR will describe relevant federal, state, and local regulations and agencies, including provisions of the federal Clean Water Act and the permitting and regulatory authority of the Regional Water Quality Control Board and the SWRCB. The EIR will identify potential seiche and dam inundation hazard zones in the project area, as well as stormwater quality protection measures required during construction and operation of proposed project.

## **Land Use and Planning**

The project site is designated as Open Space Reserve and is zoned as General Agriculture by the County of Orange. The project area contains specialized development requirements as required by various regulatory agencies and the City of Irvine. The EIR will evaluate the proposed project's potential to conflict with all applicable plan, policies, and regulations as well as any deed restrictions imposed on surrounding mitigation lands as described above under Biological Resources.

## **Mineral Resources**

While the project site is not identified as a known mineral resource area and does not have a history of mineral extraction uses, the EIR will include an evaluation of the project's potential to result in the loss of availability of a known mineral resource.

## **Noise**

Implementation of the proposed project would require construction and operation of project components that would generate noise and vibration. Construction activities could be a significant source of temporary noise and vibration from trucking operations and the use of heavy construction equipment (e.g., drill rigs, graders, cranes, and frontend loaders). During project operation, fixed sources of noise could be established. The EIR will describe the local noise policies and ordinances. The EIR will quantify potential noise and vibration levels associated with construction and operation of the proposed project for comparison to standards and thresholds established in local noise policies and ordinances.

## **Population and Housing/Growth Inducement**

The proposed project does not include the construction of new housing. As such, the proposed project would not directly induce population growth. The proposed project will be built to enable IRWD to meet the community's needs for recycled water. The proposed project is not expected to indirectly result in construction of new housing or increase the local population; the workforce for construction of the proposed project is anticipated to derive from the existing labor pool in Orange County, and operation of the proposed project is not expected to create new long-term employment opportunities. However, the

EIR will address the proposed project's potential to induce indirect population growth due to expansion of water storage capacity and the corresponding ability to store recycled water at Syphon Reservoir. The EIR will evaluate the proposed project's potential to indirectly induce growth in the region.

## **Public Services**

The proposed project would construct a new recycled water storage facility but is unlikely to affect demand for other public services or to require other new or expanded public facilities. The EIR will assess the potential for the proposed project to affect police and fire protection services, schools, and parks.

## **Recreation**

In the project vicinity, the City of Irvine and Orange County Parks (OC Parks) maintain parks and provide recreational services. The nearest recreational facility is the Crean Lutheran High School Athletic Complex and Mockingbird Park located adjacent and approximately 0.25-mile south of the project site, respectively. The EIR will analyze potential impacts to existing local recreational resources. The EIR also will evaluate any potential recreational opportunities that may be compatible with the project site and implemented as a component of the proposed project.

## **Traffic and Transportation**

Construction of the proposed project could affect traffic on local roadways as a result of vehicle trips associated with hauling of material and equipment, increased demand for parking to serve construction workers, and increase in traffic hazards caused by construction activities. In addition, operation of the proposed project could introduce vehicle trips to the project area for delivery of disinfection materials and operation and maintenance vehicles. The EIR will evaluate the potential impact to traffic and circulation due to construction-related vehicle trips and operational vehicle trips on local and regional roadways.

## **Tribal Cultural Resources**

IRWD is conducting AB 52 tribal consultation with the following three Native American Tribes who have requested to be informed of activities initiated by IRWD: San Gabriel Band of Mission Indians, Gabrieleño Band of Mission Indians – Kizh Nation, and Juaneño Band of Mission Indians/Acjachemen Nation. There is a potential for the proposed project to affect tribal cultural resources during ground-disturbing activities associated with construction of the proposed project. The EIR will evaluate potential impacts to tribal cultural resources and incorporate the results of AB 52 consultations into the analysis.

## **Utilities and Service Systems**

The EIR will evaluate whether construction and operation of the proposed project could result in impacts to existing public utilities, such as water or sewage treatment, storm water drainage, and solid waste disposal. The proposed project would not require additional water facilities beyond those identified in the project description; however, development of the proposed project may modify the mix of water supplies used within the IRWD service area. The proposed project is not anticipated to increase impervious surfaces that can result in increases in storm water runoff, and the existing storm drain in Portola Parkway has sufficient capacity for discharges from the proposed enlarged reservoir as described previously. As such, additional storm water drainage facilities would not be required. Construction activities associated with the proposed project could increase construction waste that could be required to be placed in a landfill, subject to solid waste regulations.

## **Wildfire**

The project site is located within an undeveloped and vegetated open space area. The project site area is located within a State/Federal Responsibility Area, Very High Fire Hazard Severity Zone. The project site includes slopes that surround the existing reservoir and are susceptible to prevailing winds. During construction, equipment and on-site diesel fuel could pose a risk to wildfire with possible ignition sources such as internal combustion engines, gasoline-powered tools, and equipment that could produce a spark, fire, or flame. The use of spark-producing construction machinery within fire risk areas such as the project area could expose temporary project workers and contractors to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Additional water available for firefighting would be available as a result of the additional recycled water stored in the proposed enlarged reservoir. The EIR will evaluate potential impacts of wildfires due to implementation of the proposed project.