



Syphon Reservoir Improvement Project

Draft Environmental Impact Report Public Meeting April 21, 2021 6:00 PM

Introductions and Presenters



Irvine Ranch Water District (IRWD)

Paul Cook, General Manager
Kevin Burton, Executive Director, Technical Services
Paul Weghorst, Executive Director, Water Policy
Wendy Chambers, Executive Director, Operations
Scott Toland, Senior Engineer
Jo Ann Corey, Environmental Compliance Analyst

ESA Environmental Science Associates (ESA)
 Jennifer Jacobus, CEQA Project Manager



Syphon Reservoir Improvement Project





Purpose of Meeting

Draft Environmental Impact Report

• IRWD acting as the Lead Agency prepared a Draft Environmental Impact Report (DEIR) for the proposed Syphon Reservoir Improvement Project, in accordance with the California Environmental Quality Act (CEQA).

Public Comment

• The purpose of the public meeting is to provide stakeholders, agencies and the public with an opportunity to provide comments on the content and analyses included in the DEIR.



Meeting Format

1. Presentation

- Participants Muted
- Meeting will be Recorded

2. Public Comment

- Use "Q&A" function at bottom of screen
- Use "Raise Hand" function (*9 for telephone) and you will be called upon by the facilitator
- Submit written comments to <u>SyphonEIR@irwd.com</u> by 4:00 p.m. on May 18, 2021





Presentation Contents

- IRWD Overview
- Project Purpose & Objectives
- Project Location & Description
- California Environmental Quality Act (CEQA) Overview and Schedule
- Draft EIR Contents & Key Findings
- Public Comment Period

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About IRWD

A not-for-profit local public agency serving residents and businesses throughout central Orange County.

181 square miles20% of Orange County

425,000 Residents served

600,000 Daytime population

Serving all or parts of:

Irvine Lake Forest Newport Beach Tustin Costa Mesa Orange Unincorporated Orange County

VIRVINE Ranch

Orange County

Irvine Ranch

Water District

IRWD Services



DRINKING WATER

5 Water treatment plants



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Sewage recycling plants



RECYCLED WATER

4 Seasonal storage reservoirs

Irvine Ranch



URBAN RUNOFF





IRWD Recycled Water Reservoirs in the Community





IRWD's Water Supply Portfolio





Project Purpose and Need: The Water Balance

More storage is needed so IRWD can capture all of the recycled water we produce.





Key Project Objectives

- Improve local water supply reliability
- Maximize use of all recycled water produced by IRWD
- Meet or exceed the latest safety standards of the State of California, Department of Water Resources, Division of Safety of Dams (DSOD)





Project Location

Vine Ranch



Existing Syphon Reservoir





Syphon Reservoir Improvement Project

NITVINE Ranch



Syphon Reservoir Improvement Project

Existing Reservoir

Proposed Reservoir



Existing (Google Earth, 2018)

Proposed (Fuscoe, 2020)



Dam Replacement

- Replacement of the existing 59-foot-high engineered dam with a new 136-foot-high engineered dam with a 20-foot-wide crest and new spillway
- The new dam would be constructed primarily from on-site impermeable materials, although a small amount of importation of some specialty materials is anticipated
- The new dam would meet or exceed the latest DSOD safety standards
- Project design would be peer reviewed through a rigorous process overseen by an Independent Design & Safety Review Panel (Technical Advisory Group) of respected industry experts





Reservoir Enlargement

- Increase the reservoir's maximum water surface elevation from 376 feet to 456 feet above mean sea level
- Increase the reservoir's capacity from approximately 500 AF to 5,000 AF
- Expand the reservoir's shoreline and water surface area up to approximately 82 acres





Other Project Components

- Treatment Facilities
- Modify Access Road
- Potential Walking/Running Trail





Environmental Review – A Public Process

California Environmental Quality Act (CEQA)





CEQA Process for Syphon Reservoir EIR



Contents of the Draft EIR

- Executive Summary
- Chapter 1: Introduction
- Chapter 2: Project Description
- Chapter 3: Environmental Setting, Impact Analysis, and Mitigation Measures
 - Aesthetics
 - Air Quality
 - Biological Resources
 - Cultural Resources
 - Energy

Irvine Ranch

- Geology & Soils
- Greenhouse Gas Emissions
- Chapter 4: CEQA Plus Considerations
- Chapter 5: Growth Inducement
- Chapter 6: Alternatives Analysis

• Hazards & Hazardous Materials

- Hydrology & Water Quality
- Noise
- Recreation
- Transportation
- Tribal Cultural Resources
- Wildfire



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Aesthetics: Scenic Resources

- Key Resource of Interest: Scenic views in Irvine and Orange County
- Methodology of Analysis: Visual Simulations from 4 Viewpoints
- Results of Analysis:

Mitigation measure requires color palettes for aboveground structures that blend with surroundings





Visual Simulation from Viewpoint A – Portola Parkway



Existing View



Visual Simulation



Visual Simulation from Viewpoint B – Stonegate



Existing View





Visual Simulation from Viewpoint C – SR 133



Existing View



Visual Simulation



Visual Simulation from Viewpoint D – Intersection Access



Existing View



Visual Simulation



Biological Resources

- Key Resources of Interest: Coastal Sage Scrub (CSS), associated specialstatus wildlife species; wetlands; riparian habitat
- Methodology of Analysis: Field surveys for vegetation and wildlife
- Results of Analysis: Mitigation measures require preconstruction surveys; onsite and offsite restoration and preservation of CSS habitat, wetlands, riparian habitat

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Geology: Seismic Faults

- Key Resource of Interest: Central Valley Fault located onsite
- Methodology of Analysis: 2020 Geotechnical Investigations
- Results of Analysis: Central Valley Fault has not moved within Quaternary time (the last 1.6 million years) and has no potential for future movement. This fault is considered inactive. Determination was accepted by DSOD





Hydrology: Flooding and Inundation

- Key Resource of Interest: Risk of flooding and inundation downstream associated with dam stability
- Methodology of Analysis:
 - State of California enforces strict regulatory and safety requirements for dam design
 - Risk-Informed Decision Making to improve dam safety
 - Site-specific geotechnical investigations completed to inform design
 - Inundation modeling required by the State for hypothetical breach of dam



Hypothetical Inundation - Existing and Enlarged Reservoir





Hydrology: Flooding and Inundation

• Results of Analysis:

- Independent Design & Safety Review Panel (Technical Advisory Group) would conduct a rigorous peer-review of the dam design to ensure project complies with or exceeds governing standards
- The design would avoid hypothetical and improbable dam failures and associated consequences to downstream communities consistent with IRWD's priority of public safety
- Regulations require continuous dam monitoring and an update to the existing Emergency Action Plan, which identify potential dam safety incidents early and minimize risks to the public
- IRWD operating protocols will prevent unlikely overtopping. Similar to a faucet, IRWD can turn on and off the water that flows in/out of the reservoir



Transportation: Traffic

- Key Resources of Interest: Traffic delays on local roads; bicycle and pedestrian safety
- Methodology of Analysis: Traffic Impact Analysis of construction-related vehicle trips and intersection modifications
- Results of Analysis: Mitigation measure requiring a Traffic Control Plan during project construction to minimize traffic delays and ensure safety for bicyclists and pedestrians. The project will maximize the use of onsite material, which will minimize truck traffic

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Alternatives Analysis for CEQA

Purpose:

"...an EIR must describe a reasonable range of alternatives to a project that could **feasibly attain** most of the **basic project objectives**, and would **avoid or substantially lessen** the project's **significant environmental effects**."

No significant impacts that cannot be mitigated

Selection Criteria:

"The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice."



Alternatives Considered in the Draft EIR

- Alternatives Considered but Rejected
- No Project Alternative
- Alternative Reservoir Locations
 - Sand Canyon Reservoir Expansion
 - Upper Rattlesnake Reservoir Expansion
- Reduced Project Alternative at Syphon Reservoir Site



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Public Comments

- Document Availability: <u>www.syphonreservoirproject.com</u>
- Public Comments
 - 1. Verbal Comments: Use "Raise Hand" function (*9 for telephone)
 - Mandarin and Korean translators are available
 - 2. Written Comments: Use "Q&A" function at bottom of screen
 - 3. Submit written comments by 4:00 p.m., on May 18, 2021

Irvine Ranch Water District Attn: Jo Ann Corey, Environmental Compliance Analyst P.O. Box 57000 Irvine, California 92619-7000 **SyphonEIR@irwd.com**



4. Responses to Comments: Will be included in the Final EIR







Thank you for attending.

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