

# *Santa Ana River Flood Protection Agency*

## **Executive Director**

Herbert I. Nakasone

## **SARFPA EXECUTIVE MEETING MINUTES**

## **Members**

City of Anaheim  
City of Buena Park  
City of Cypress  
City of Fountain Valley  
City of Fullerton  
City of Garden Grove  
City of Huntington Beach  
City of Irvine  
City of Newport Beach  
City of Orange  
City of Placentia  
City of Santa Ana  
City of Seal Beach  
City of Stanton  
City of Tustin  
City of Westminster  
City of Yorba Linda  
County of Orange  
Costa Mesa Sanitary District  
O C Sanitation District  
O C Flood Control District  
O C Water District

March 23, 2023, at 4:00 p.m.

### **Attendance/Attendees:**

Patrick Harper, SARFPA Chairman, Mayor, City of Fountain Valley  
Bruce Whitaker, SARFPA Vice-Chairman, Mayor Pro Tem, City of Fullerton  
Kathleen Treseder, Council Member, City of Irvine  
Steven Sherwood, City Engineer, City of Irvine  
Pat Burns, Council Member, City of Huntington Beach  
Ray Schnell, Council Member, City of Tustin  
Jake Ngo, Public Works Director, City of Westminster  
Jun Wang, Engineer, Stantec  
James Tyler, SARFPA Executive Committee, OC Public Works, Alt. to Supervisor Don Wagner  
Art Perry, Director, Costa Mesa Sanitary District  
Frances Marquez, Council Member, City of Cypress  
Mike Markus, General Manager, Orange County Water District  
Keith Linker, City Engineer, City of Anaheim  
Nabil Saba, Public Works Director, City of Santa Ana  
Jonathan Hernandez, Director, OC Sanitation District  
Dave Ahern, OC Public Works  
Nardy Khan, OC Public Works  
Pipit Widjaja, OC Public Works  
Tim Nguyen, OC Public Works  
Herb Nakasone, Executive Director, Santa Ana River Flood Protection Agency

## **Mailing Address**

P.O. Box 4048  
Santa Ana, CA 92702-4048

## **Email Address:**

Herb.Nakasone@ocpw.ocgov.com  
hinakasone22@gmail.com

## **Phone**

(714) 647-3938  
(949) 922-1852

## **Location**

601 N. Ross Street  
Santa Ana CA 92701

## **Website**

[www.ocflood.com/sarp/sarfpa](http://www.ocflood.com/sarp/sarfpa)

### **1. Call to Order**

Meeting Call to Order at the Orange County Water District Hearing Room by Chairman Patrick Harper at 4:05 pm

### **2. Pledge of Allegiance**

Pledge of Allegiance led by Chairman Harper

### **3. Approve Minutes of November 17, 2022 Full Agency Meeting**

Approve Minutes of January 26, 2023, Executive Committee Meeting - Chairman Patrick Harper.

Minutes of January 26, 2023 Executive Committee Meeting were unanimously approved based on Motion by Bruce Whitaker, Mayor Pro Tem, City of Fullerton and Second by Pat Burns, Council Member, City of Huntington Beach.

### **4. Santa Ana River Mainstem and Westminster Project Status:**

James Tyler, OC Public Works Engineering Manager reported on the status of the Santa Ana River Mainstem and Westminster Watershed Project.

# *Santa Ana River Flood Protection Agency*

James Tyler reported on the Santa Ana River Mainstem Project (SARP) using a Power Point presentation. James initiated his report by reviewing the overall SARP with an exhibit depicting the entire Santa Ana River watershed and identifying the main features of the SARP that have been completed and the remaining features currently underway. James explained the SARP is a federal project with the U.S. Army Corps of Engineers (USACE) as the lead federal agency and the Orange, Riverside and San Bernardino Flood Control Districts as the Local Sponsors. James identifies the construction projects currently underway as follows:

- a. Projects underway at Prado Dam and the construction cost as follows:
  - Norco Bluff - \$29 million project scheduled to be completed in 2024.
  - River Road Dike - \$18.1 million project scheduled for completion in late 2023.
  - Alcoa Dike Phase 2 - \$30.8 million project scheduled for completion in late 2023.
- b. The following Projects in Reach 9 of the Santa Ana River between Weir Canyon Road and Prado Dam have been completed and scheduled for turn over to the OCFCD for maintenance:
  - Reach 9 Phase 4 bank embankment project.
  - Reach 9 Phase 5A and 5B bank protection projects.
- c. The USACE is preparing a design for the \$135 million Santiago Creek Project with the Engineering Design Review scheduled for submittal in September 2023.
- d. Property acquisition at Prado Dam is progressing on schedule with 10 properties remaining to be acquired. 113 properties have been acquired to date.
- e. Utility relocations at Prado Dam are continuing. Negotiations with the Edison Company regarding the relocating of their power lines appear to be an issue needing resolution.
- f. James reported the Santa Ana River flood control facilities, including Prado Dam performed exceptionally well during the recent storm events without major flooding to residents in Orange County. In addition, a significant amount of storm flows captured behind Prado Dam and Seven Oaks Dam have been successfully used to recharge the ground water basins in Orange and San Bernardino Counties. In Orange County, the Orange County Water District has been able to significantly replenish the ground water basin as a result of control release of storm flows retained at Prado Dam.

James Tyler reported on the status of the Westminster Watershed project as follows:

- a. The Orange County Flood Control District continues to award construction contracts to improve segments of the East Garden Grove Wintersburg Channel as identified in the USACE completed Westminster Watershed Study in anticipation of receiving credit towards a federal project to be funded by Congress.
- b. The Westminster Watershed is the second largest watershed in Orange County that continues to have a FEMA flood plain requiring residents to purchase mandatory flood insurance for those who have a home loan.

# *Santa Ana River Flood Protection Agency*

- c. While the \$1.2 billion Westminster Watershed Project is a federally supported project, the federal share is limited by federal policy where the flood protection benefits must exceed the project cost. Since the flood protection benefits received on the Westminster Project only allows a federal construction expenditure that will provide less than a 100 year level of flood protection, the project supported by the federal guidance will not provide a level of flood protection that will remove the 100 year FEMA floodplain. Since the limited federal construction expenditure on the Westminster Project, will not allow the project to provide the desired 100 year level of protection and therefore prohibiting the remove the underlying FEMA floodplain, the County of Orange has elected to cover the cost above the federal share allowing the County of Orange proposed flood improvements to provide a 100 year level of protection thereby removing the FEMA floodplain which is the goal of the County of Orange.
- d. Although the Westminster Project will require the Orange County Flood Control District to expand twice as much funding on the Project as the federal government, the County of Orange continues to lobby Congress for federal appropriations of the Westminster Project since a Federal project will allow the State of California to participate in the funding of the Westminster project.

## **5. Report from Executive Director- Herb Nakasone**

Herb announced a field trip to Prado Dam is tentatively scheduled for late May or early June. Vans will be provided for the six-hour field trip. Comfortable shoes are recommended. The date of the field trip and the pick-up locations will be announced at or prior to the June meeting.

## **6. Public and Representative Comments:**

- a. Based on Johnathan Hernandez, Council Member, City of Santa Ana request to have the Zoom recording made available to the cities on the SARFPA web site, Executive Director Herb Nakasone will follow up on the request.
- b. Chairman Patrick Harper requested information on the cost of yearly flood insurance premiums paid by city residences. James Tyler will attempt to secure the information from FEMA.
- c. Executive Director Herb Nakasone introduced David Ahern, who is involved in Federal and State legislative activities for OC Public Works and will assist SARFPA in coordinating activities related to the funding of the Santa Ana River and Westminster Projects.

## **7. Adjournment**

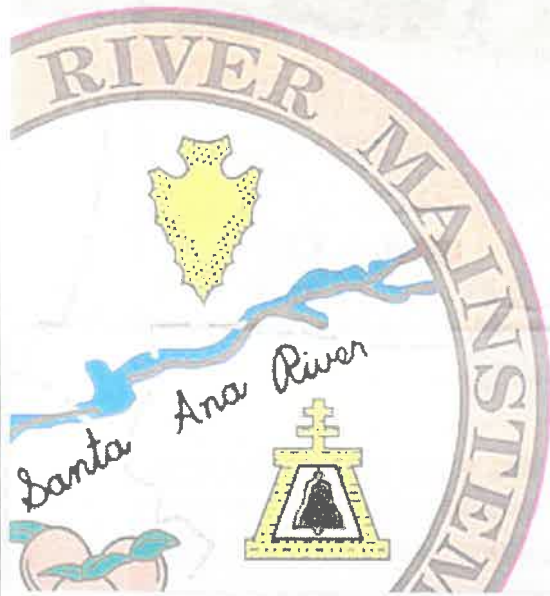
Chairman Patrick Harper adjourned the Meeting at 4:55 pm.

Attachment:

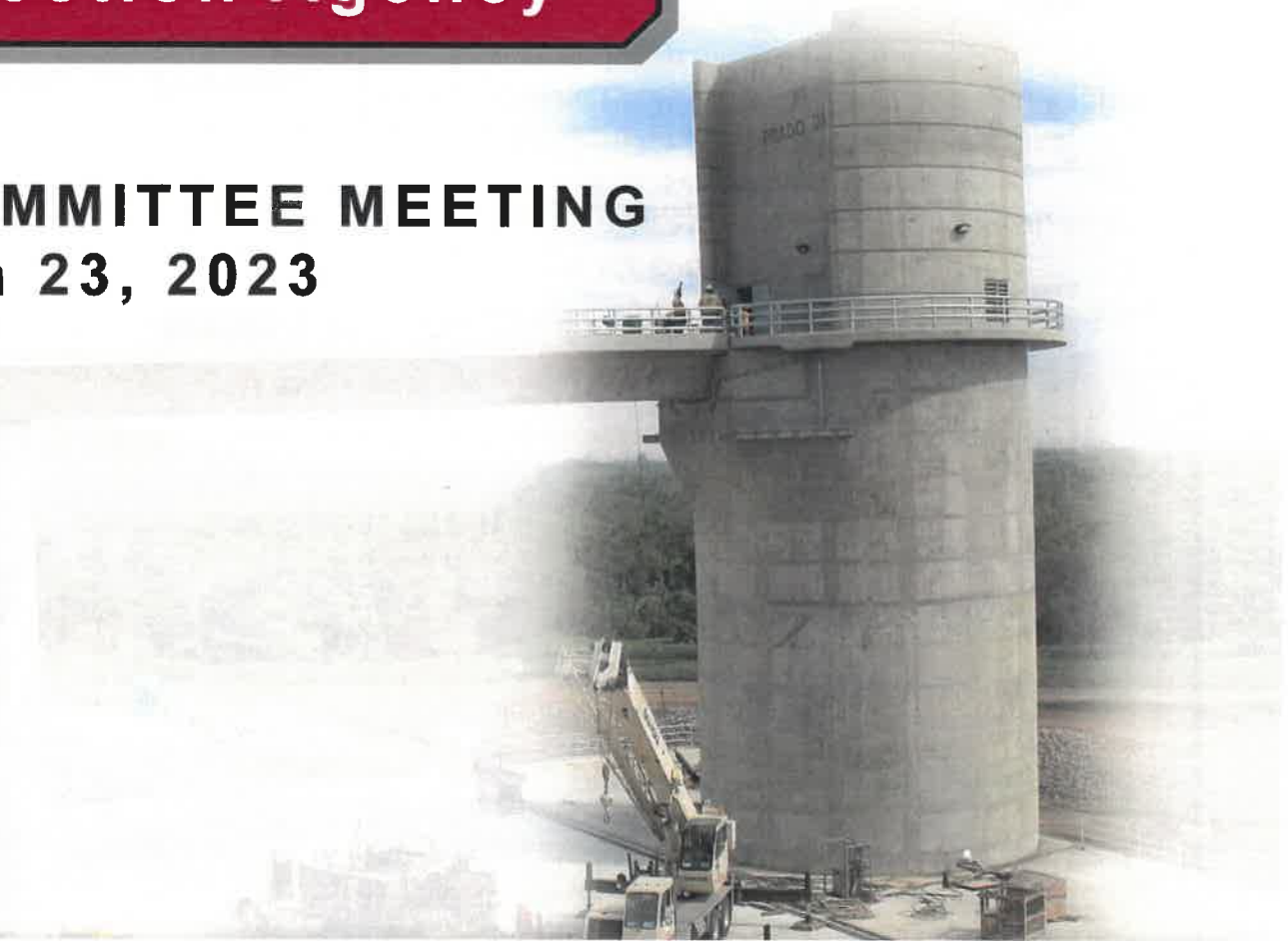
- Power Point Presentation from James Tyler

# Santa Ana River Flood Protection Agency

**EXECUTIVE COMMITTEE MEETING  
March 23, 2023**

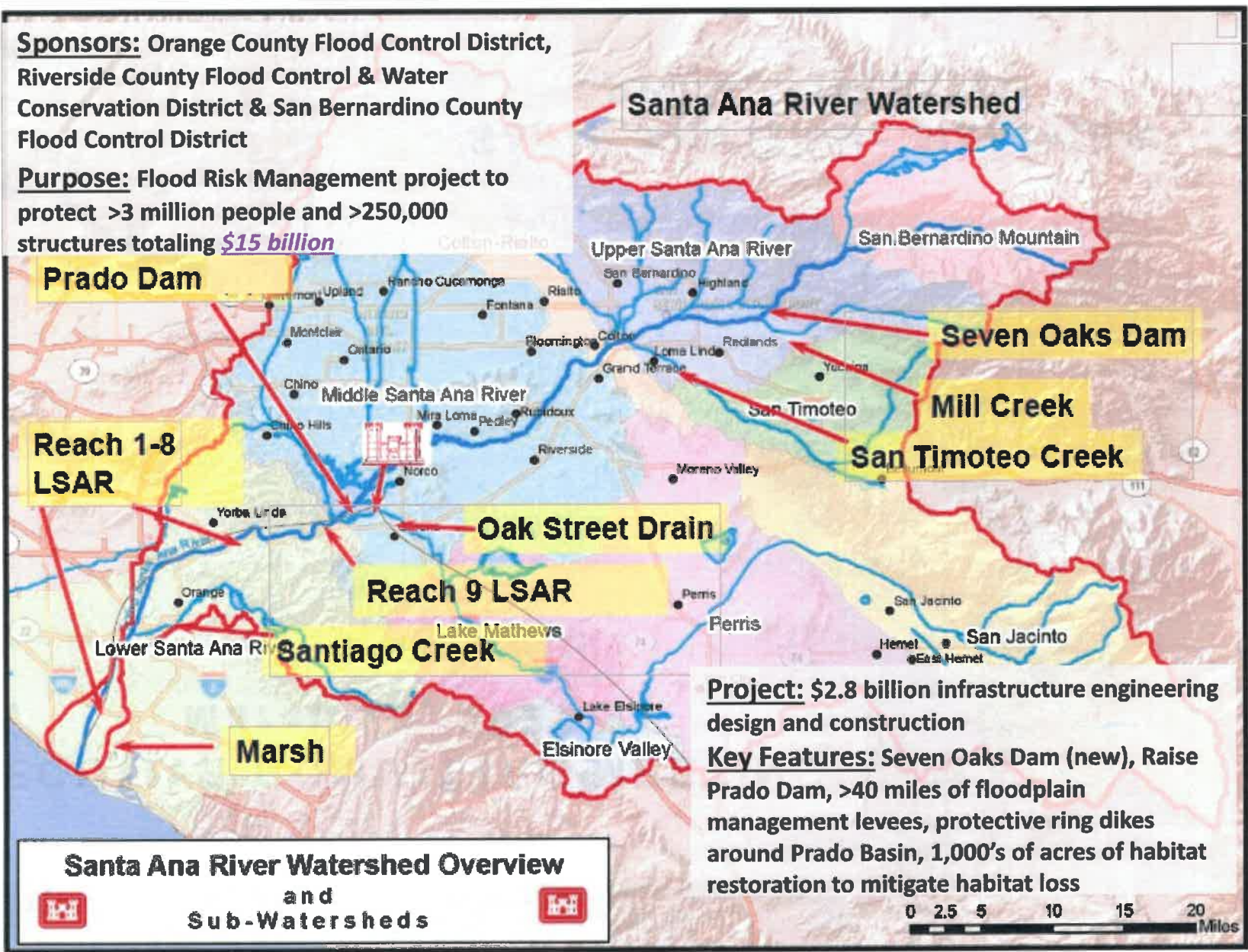


***Santa Ana River Mainstem  
Project Updates***



**Sponsors:** Orange County Flood Control District, Riverside County Flood Control & Water Conservation District & San Bernardino County Flood Control District

**Purpose:** Flood Risk Management project to protect >3 million people and >250,000 structures totaling **\$15 billion**





# SANTA ANA RIVER MAINSTEM SCHEDULE \*



- **FY19** : Ongoing Design & Construction
- **FY21** : Norco Bluffs (\$29.7M)  
River Road Dike (\$18.1M)  
Alcoa Dike – Phase 2 (\$30.8M)
- **FY24** : Spillway (\$1.35B)
- **FY31** : Construction Completion (All Features)
- **FY31-36** : 5 Year Monitoring & Fiscal Close Out
- **Santiago Creek (\$135M)** – A \$2.5M budget was allocated to develop a proposed design for a project that meets the intent of the original authorized SARM Project. 95% Engineering Design Report (EDR) (Passive Reservoir Design) review has been completed and Final draft is ongoing. EDR will be submitted to Change Control Board in September 2023 for decision whether project will be funded through BBA or regular appropriations.

\* SCHEDULE SUBJECT TO REAL ESTATE ACQUISITION & ENVIRONMENTAL CLEARANCE

# Santa Ana River Mainstem Project Lower SAR remaining work



# Santa Ana River Mainstem Project Reach 9 – Phase 4



## LEGEND

### Reach 9 Embankment Protection

	Phase 2A		Phase 4
	Phase 2B		Phase 5A
	Phase 3		Phase 5B

## REACH 9 - PHASE 3 & 4

**Construction Contract Award Date: April 2016**

**Construction Completion Date: Nov 2019**

**Final Walkthrough: Jan 30, 2020**

**Turnover to Local Sponsor: Completed via acceptance letter dated March 21, 2023**

**Construction Project Cost = \$15 M**

**Approx. 3,000 feet of soil cement levee embankment**

**REACH 9 PHASE 4 FUNDED IN FY15**



## Reach 9 Phase 4



***Bikeway with Landscaping (May 2022)***

***Inlet Structure Adjacent to Bikeway (May 2022)***









***Soil Cement & DG Trail (May 2022)***

# Santa Ana River Mainstem Project Reach 9 – Phase 5A & 5B



## LEGEND

### Reach 9 Embankment Protection

	<b>Phase 2A</b>		<b>Phase 4</b>
	<b>Phase 2B</b>		<b>Phase 5A</b>
	<b>Phase 3</b>		<b>Phase 5B</b>

## REACH 9 - PHASE 5A & B

**Reach 9 Phase 5A (Approx. 100% complete)**  
**Construction Contract Award Date: Sept 2015**  
**Construction Completion Date: Jan 2019**  
**Construction Cost = \$23 M**  
**Turnover to Local Sponsor: After completion of maintenance repair by the Corps (Tentative Date: TBD)**

**Reach 9 Phase 5B (100% complete)**  
**Construction Contract Award Date: Oct 2016**  
**OHL Contract Terminated.**  
**Interim on-call contractor hired by Corps in Jan 2020;**  
**New main contract awarded in Sept 2020;**  
**Silverstrand Construction**  
**Construction Cost Estimate = \$22.5 M**  
**Construction Completion Date: Oct 2022**  
**Turnover to Local Sponsor: (Tentative Date: Jan 2024)**

**REACH 9 PHASE 5A FUNDED IN FY15; REACH 9 PHASE 5B FUNDED IN FY16**

## Reach 9 Phase 5B

### *Photos from Aug 2022 - Final Bikeway Inspection*



## Reach 9 Phase 5B

### *Photos from Aug 2020 for Interim Work*



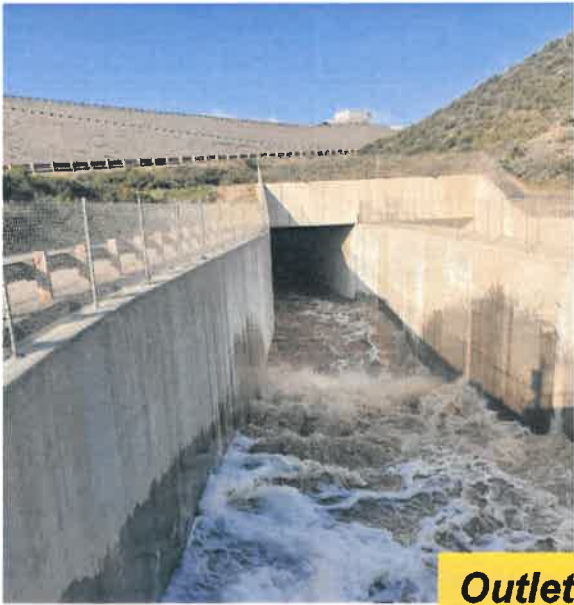
### *Photos from September 2021*



**Prado Dam Photos  
Storm Season (March 2023)**

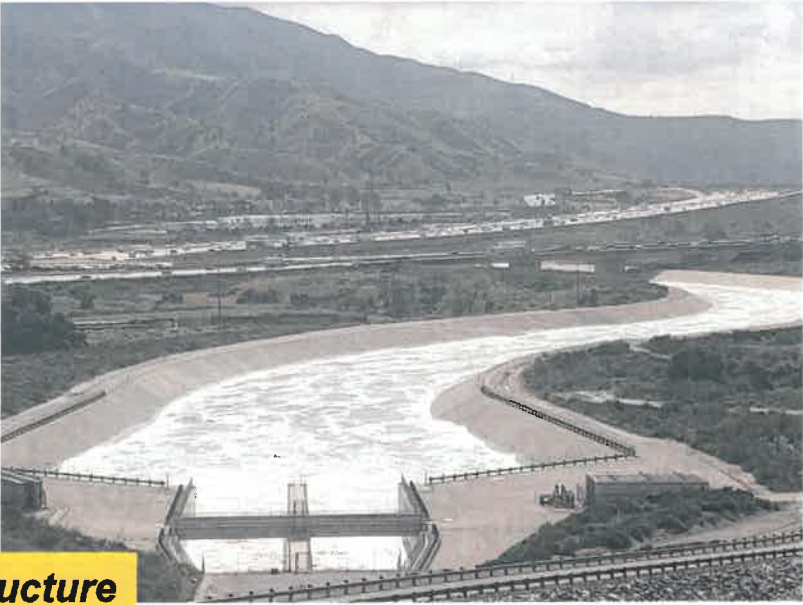


**Prado Basin**



**WSE=507'  
(Last week)**

**Outlet Structure**



# PRADO DAM ACQUISITION AND UTILITY RELOCATION



## PRADO DAM BASIN ACQUISITION

Prado Basin Property Acquisitions	Properties	Cost
Total properties below 566 ft	235	-
Deletions due to negligible impact	122	-
Actual number of properties to be acquired	113	\$315M
Acquired to date (as of March 2023)	103	\$245M*
Remaining to be acquired	10	\$70M**

\*Land value only (no soft cost)

\*\*Estimate

# UTILITY RELOCATION

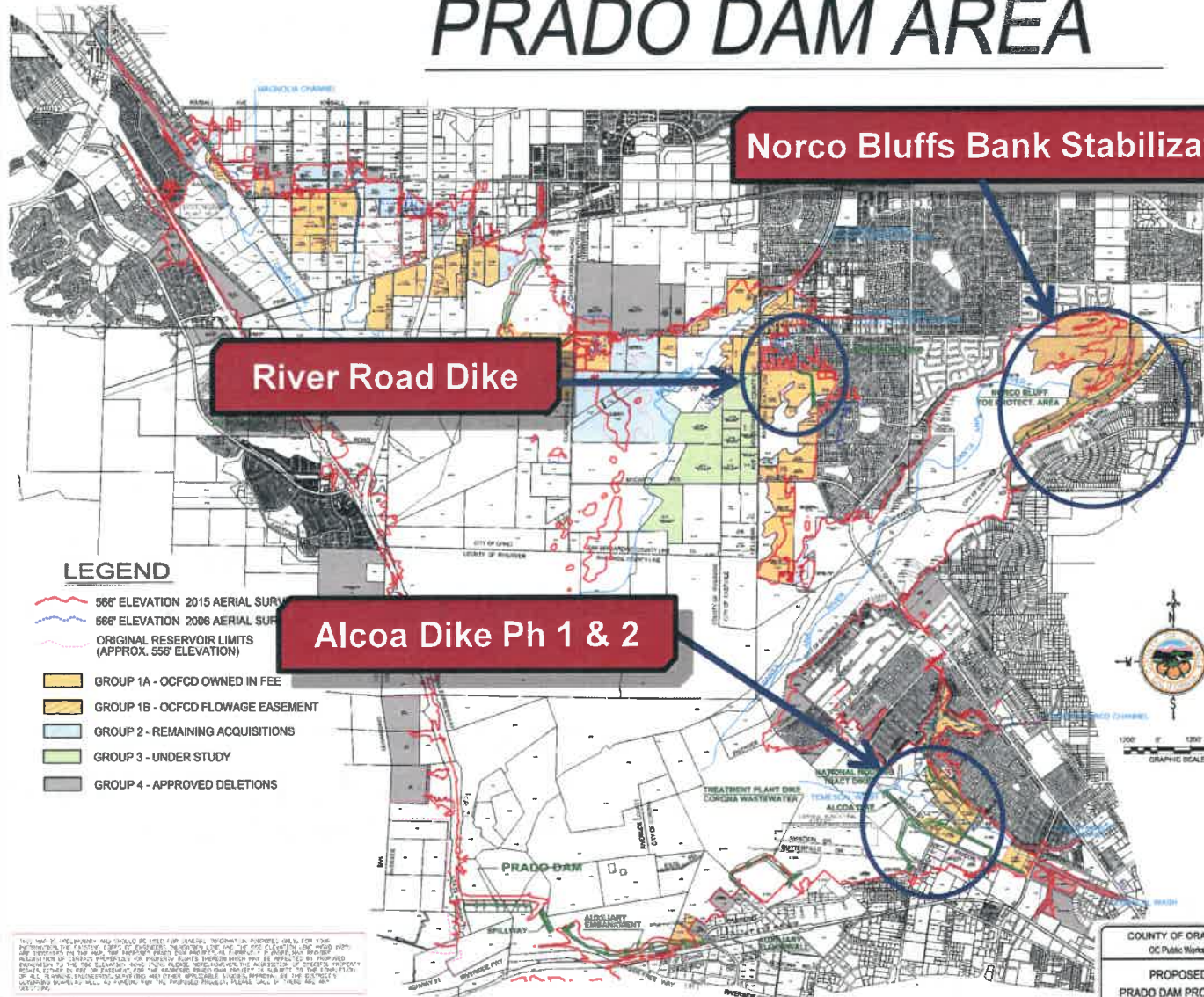
	Est. Cost \$ million by	Est. Cost \$ million per OCPW Analysis
<b>7 Utility Companies – Agreements in Place (JCSD, SAWPA, IEUA, Cities of Chino, Corona, Norco and Eastvale)</b>	\$2.5	\$2.5
<b>Remaining Utility – SCE (estimated cost includes design)</b>	\$142.5	\$0.2
<b>Transmission Lines (analysis complete/waiting for Corps concurrence/amendments ongoing)</b>	\$11	\$0
<b>Sub-transmission Lines (analysis complete/waiting for Corps concurrence/amendments ongoing)</b>	\$98	\$0
<b>Distribution – (Prior rights analysis completed)</b>	\$20	\$0.20
<b>Study</b>	\$13.5	\$0



**Current LERRDs deadline is May 2023**



# PRADO DAM AREA



# PRADO DAM CONSTRUCTION

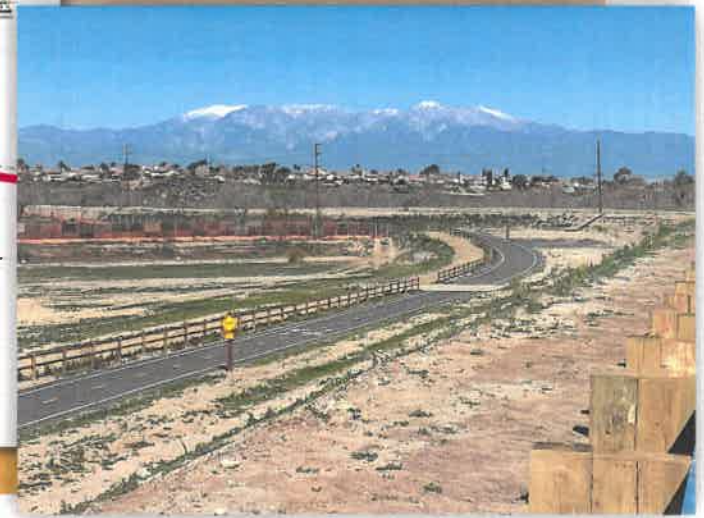
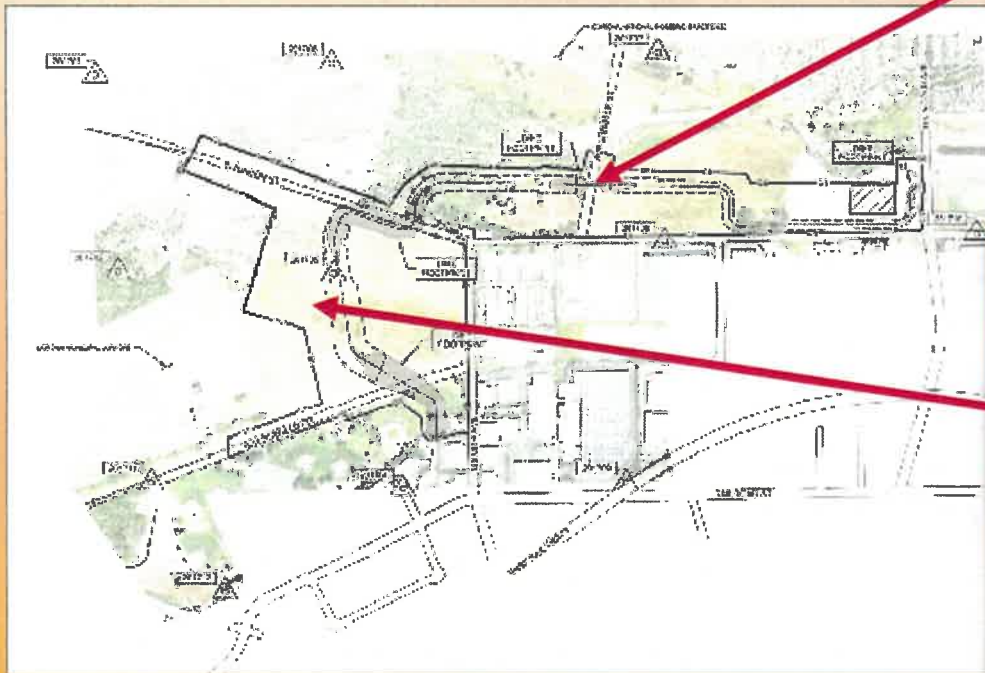
## **Phase 1 Contract Awarded – Sept 2018**

- **Contract Amount – \$21.4M**
- **Completed – August 2020**

## **Phase 2 Contract Awarded – Sept 2021**

- **Contract Amount - \$24.5M**
- **Construction Start – January 2022**
- **Anticipate Completion – Late 2023**

## Alcoa Dike

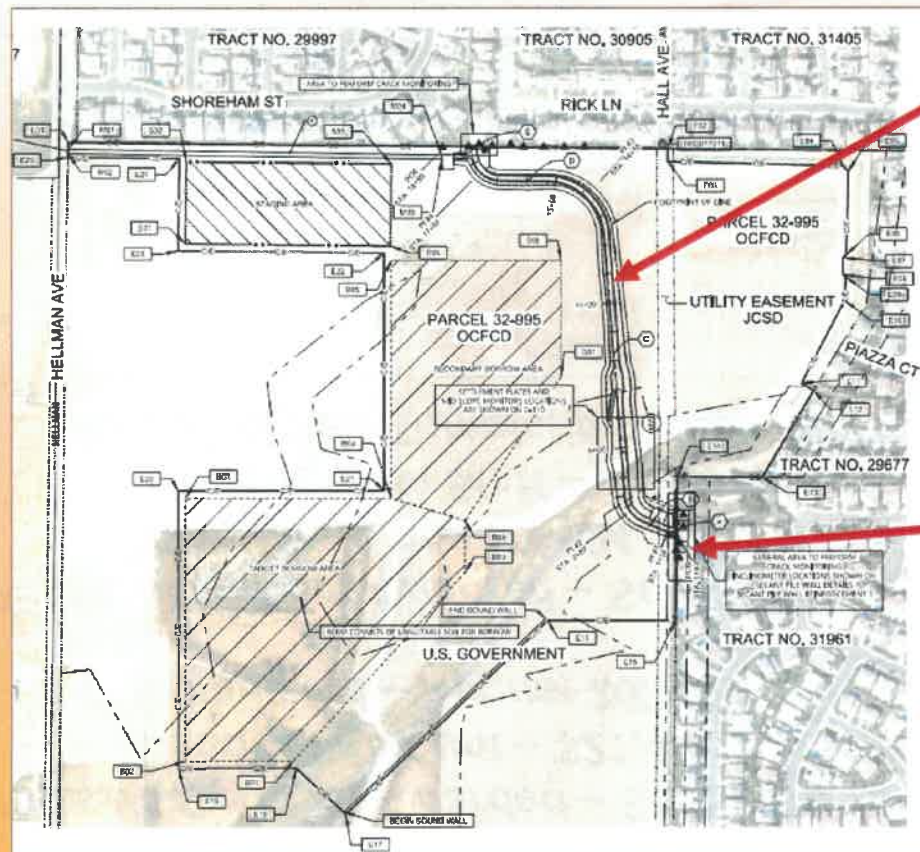


# PRADO DAM CONSTRUCTION

## Contract Awarded – Sept 2021

- **Contract Amount – \$9.2M**
- **Construction Start – December 2021**
- **Anticipate Completion – Late 2023**

## River Road Dike

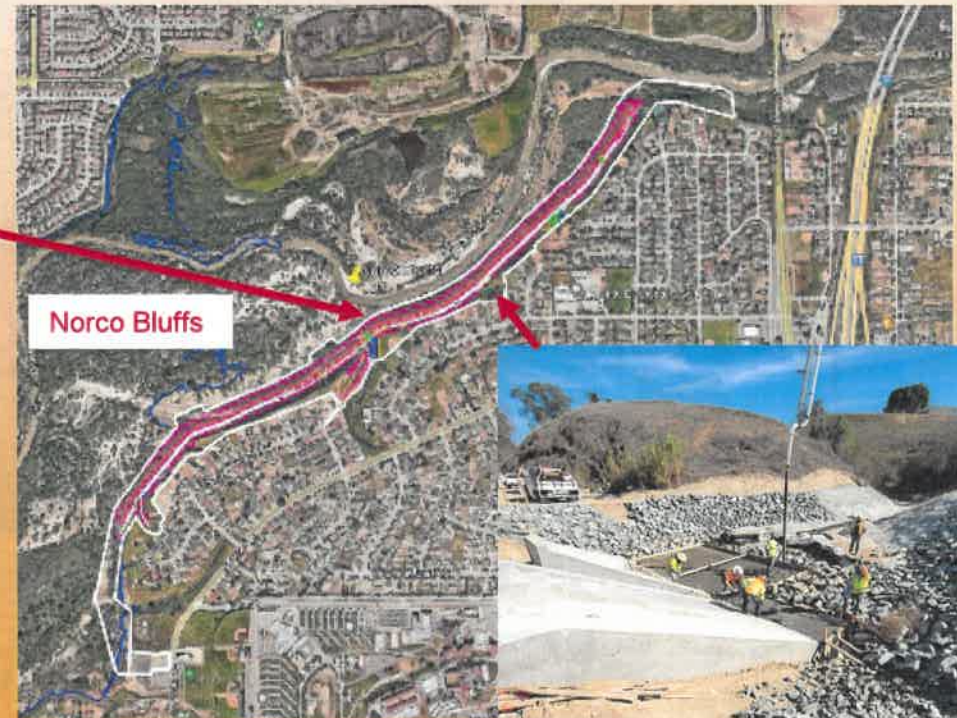


# PRADO DAM CONSTRUCTION

## Norco Bluffs Bank Stabilization

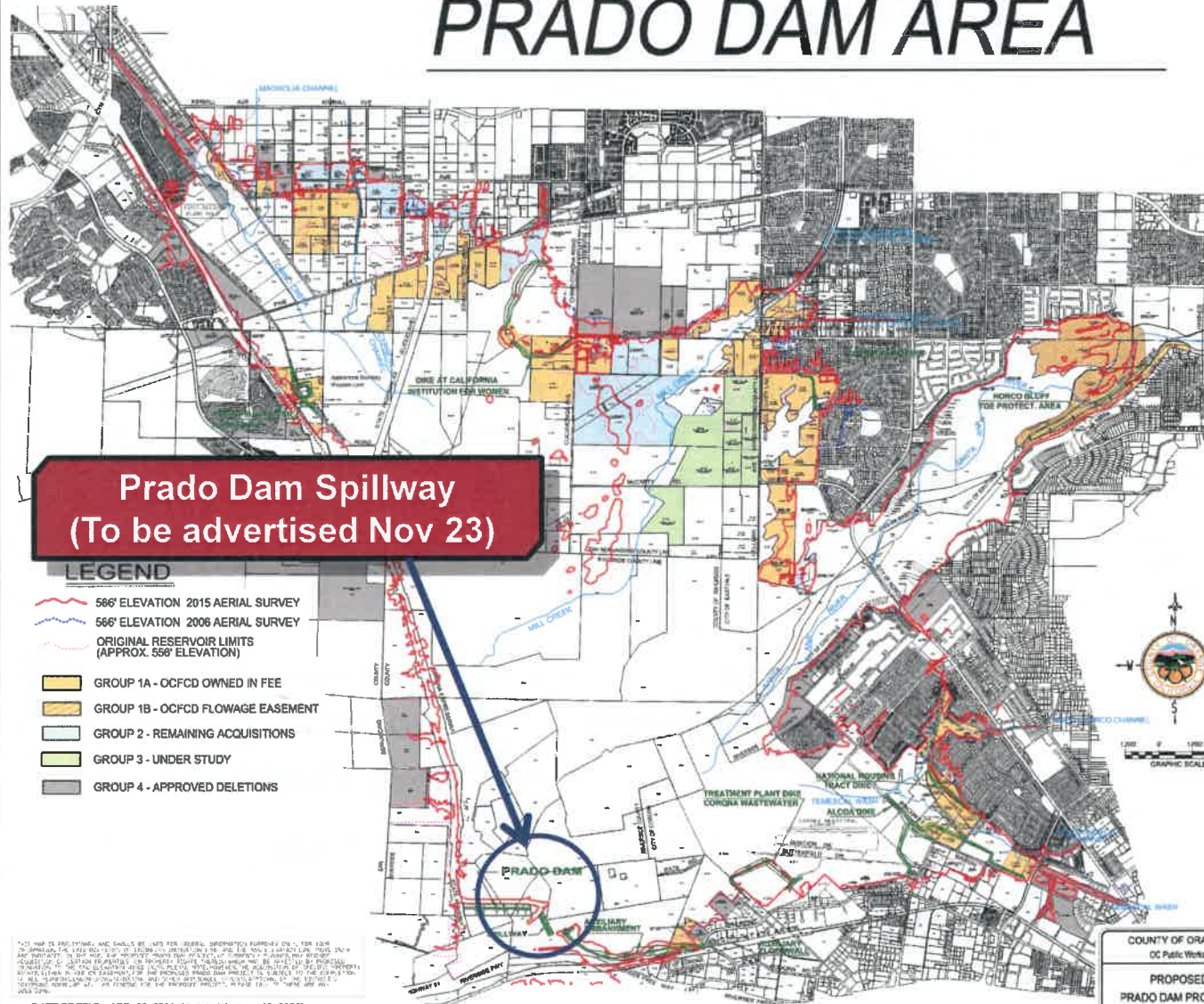
### *Contract Awarded – July 2021*

- **Contract Amount – \$30 M**
- **Construction Start – December 2021**
- **Anticipate Completion – Fall 2024**



# PRADO DAM CONSTRUCTION - Future Projects

## PRADO DAM AREA



**Prado Dam Spillway  
(To be advertised Nov 23)**

### LEGEND

- 566' ELEVATION 2015 AERIAL SURVEY
- 566' ELEVATION 2006 AERIAL SURVEY
- ORIGINAL RESERVOIR LIMITS (APPROX. 556' ELEVATION)
- GROUP 1A - OCFCD OWNED IN FEE
- GROUP 1B - OCFCD FLOWAGE EASEMENT
- GROUP 2 - REMAINING ACQUISITIONS
- GROUP 3 - UNDER STUDY
- GROUP 4 - APPROVED DELETIONS

\*THIS MAP IS PRELIMINARY AND SHALL BE USED FOR GENERAL INFORMATION PURPOSES ONLY. FOR A MORE DETAILED AND ACCURATE MAP, PLEASE CONTACT THE COUNTY OF ORANGE PUBLIC WORKS DEPARTMENT. THE COUNTY OF ORANGE PUBLIC WORKS DEPARTMENT IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS. THE COUNTY OF ORANGE PUBLIC WORKS DEPARTMENT IS NOT RESPONSIBLE FOR ANY DAMAGES, INCLUDING CONSEQUENTIAL DAMAGES, ARISING FROM THE USE OF THIS MAP. THE COUNTY OF ORANGE PUBLIC WORKS DEPARTMENT IS NOT RESPONSIBLE FOR ANY DAMAGES, INCLUDING CONSEQUENTIAL DAMAGES, ARISING FROM THE USE OF THIS MAP.

DATE PREP'D : APR. 26, 2000 (Updated January 12, 2022)



COUNTY OF ORANGE  
OC Public Works  
PROPOSED  
PRADO DAM PROJECT



# WESTMINSTER EAST GARDEN GROVE PROJECT UPDATE

*Santa Ana River Flood Protection Agency*  
**EXECUTIVE COMMITTEE MEETING**

*March 23, 2023*

 **Public Works**

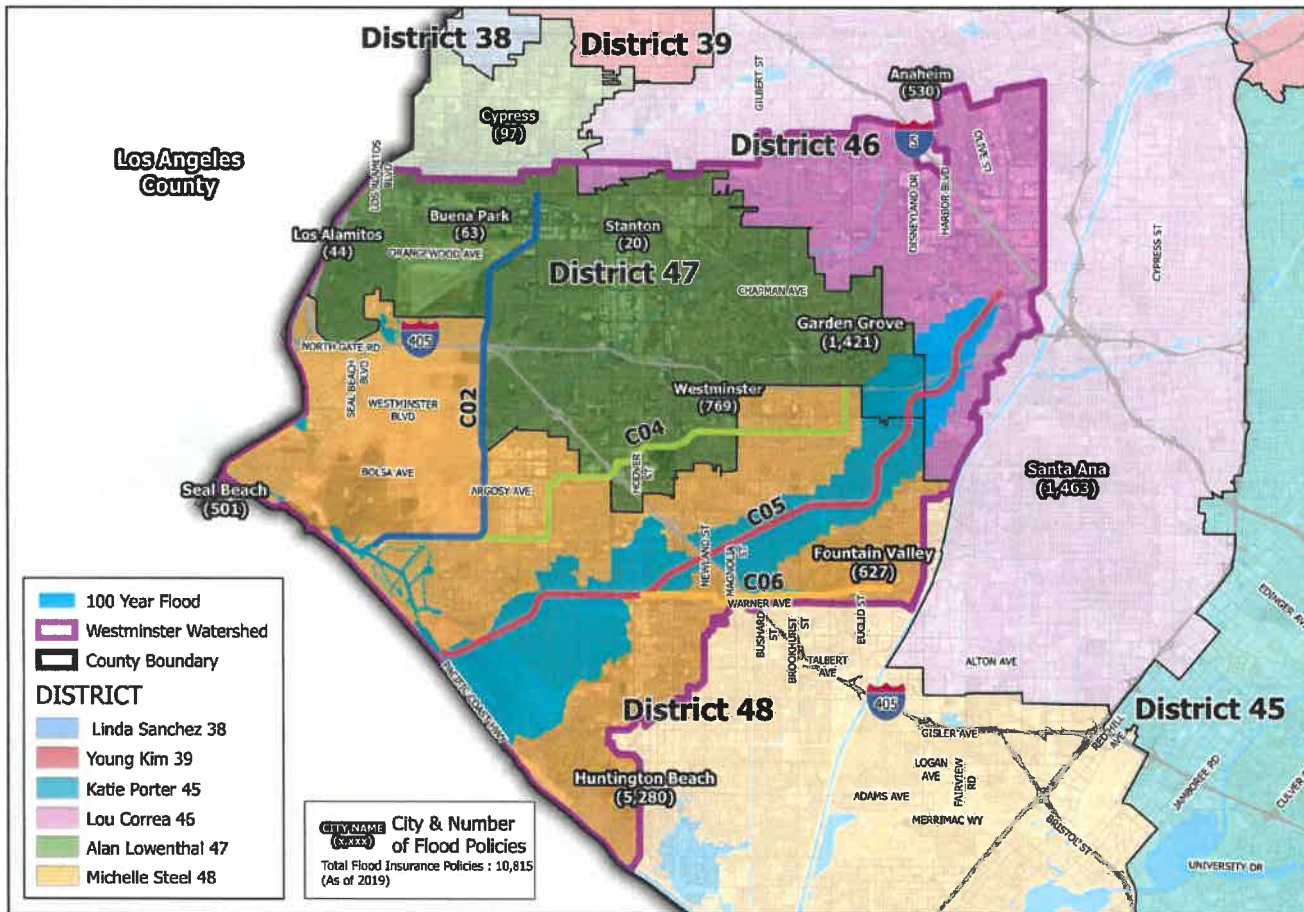


## Westminster East Garden Grove Project - Background

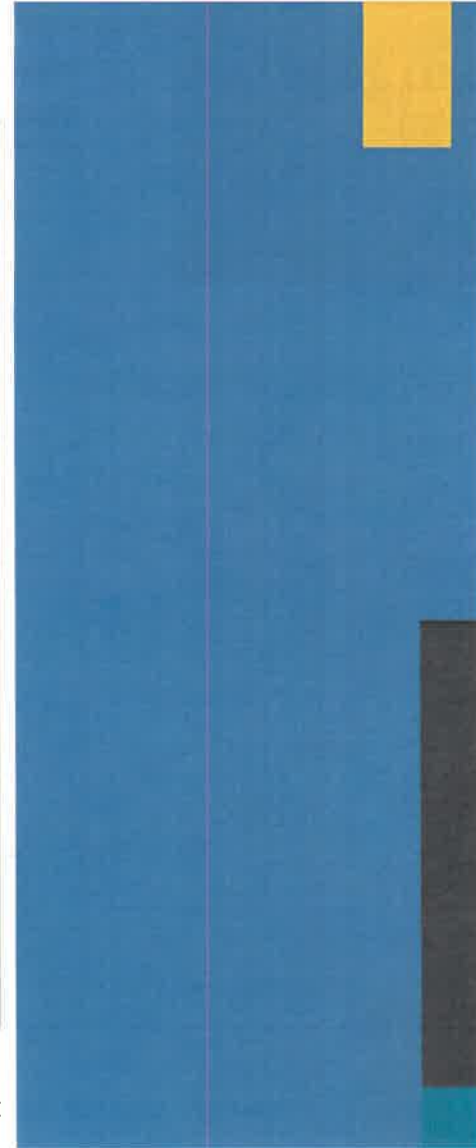


- ❖ **USACE (Federal) and OCFCD/County (Non-Fed) partners for the Study since 2003.**
- ❖ **74 Square Mile Watershed (largest remaining watershed in Orange County)**
- ❖ **250,000+ Population**
- ❖ **Estimated 20,000 structures at risk**
- ❖ **Estimated \$72M in Damages (for a 100 Year Event)**
- ❖ **Approximately 6,500 flood policies \$9 -11 Million (avg) paid in Flood Insurance policies per year**
- ❖ **Chief's Report was signed July 9, 2020 and provided to Congress for authorization in WRDA 2020**
- ❖ **The Project was authorized by Congress as part of WRDA 2020 and signed by the President as part of the Omnibus Bill December 2020.**

# Westminster Watershed Feasibility Study

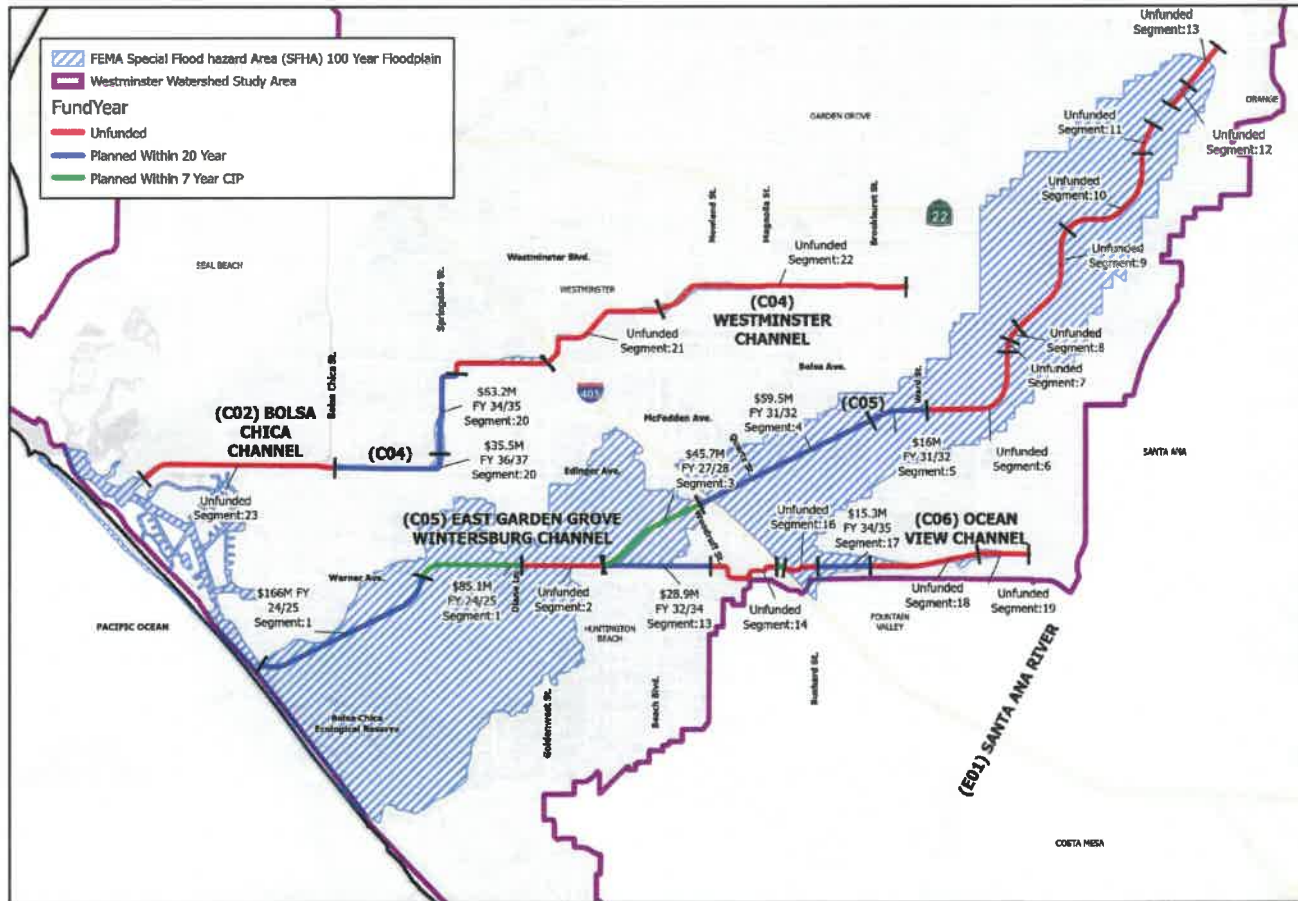


Congressional Districts  
Westminster East Garden Grove Project





# WEGG CHANNEL REACHES & APPROXIMATE COSTS



Facility	Limits	S&S Project Cost on CIP	Construction FY	USACE Segment	Plan
EGGW (C05)	from U/S Warner Avenue to 1,200 ft D/S Goldenwest Street (Diane Lane)	\$85,100,000	FY19-20	1	7-Year CIP
	from the confluence with Ocean View Channel (C06) to D/S Woodruff Street	\$58,280,280	FY28-29	3	7-Year CIP
Oceanview (C06)	from U/S Quartz Street to U/S Bushard Boulevard	\$37,373,000	FY33-34	4	20 Yr SFP
	from U/S Bushard Street to U/S McFadden Avenue /Brookhurst Street	\$28,177,000	FY33-34	4	20 Yr SFP
	from U/S McFadden Avenue / Brookhurst Street to Ward Street	\$18,411,000	FY33-34	5	20 Yr SFP
	including tidegates to 1,200 ft D/S Goldenwest Street	\$169,370,204	FY26-27	1	7-Year CIP
	from confluence with C05 to D/S Beach Blvd	\$14,814,800	FY32-33	13	20 Yr SFP
Westminster (C04)	from U/S Beach Boulevard to D/S Newland Street	\$15,125,600	FY33-34	13	20 Yr SFP
	from D/S Bushard Street to D/S Brookhurst Street	\$15,850,800	FY34-35	17	20 Yr SFP
	from Bolsa Chica Street to U/S Springdale Street / Edinger Avenue	\$36,778,000	FY36-37	20	20 Yr SFP
	from U/S Springdale Street / Edinger Avenue to D/S Bolsa Avenue	\$55,115,200	FY34-35	20	20 Yr SFP
		\$312,750,484	7 Year		
		\$221,645,400	20 Year		
		\$534,395,884	Total		

Note: Other CIP projects will potentially be deferred

# WEGG PROJECT NEED ESTIMATES

- ❖ **Pre-Construction, Engineering and Design (PED) Funding**
  - Needed before new start can be advocated for
  - Local sponsor cost share TBD
- ❖ **Funding**
  - Total project: \$1.2B (First costs)
  - Federal Share: \$315M
  - Local Share: \$910M
    - NED: \$169M
    - LPP: \$741M
  - State Subvention: ~50-70% of NED
  - 7 Year CIP Plan: \$297M
  - 20 Year CIP Plan: \$208M
  - Amount unfunded: \$910M - \$505M = \$405M



# WEGG Advocacy for 2022

## ❖ Federal

- Corps FY 2023 Work Plan – \$500K Initial PED Funding
  - Advocate with Corps HQ and ASA
    - OCPW & OC Congressional Delegation Members
- Delegation letter – Congresswoman Steel
  - Advocate for potential remaining IIJA funds



## Current & Future Activities

- ❖ OCPW is submitted an updated Letter of Intent 3/11/22 showing continued commitment to costshare its part of the Pre-Construction, Engineering & Design (PED) Phase of the project
- ❖ CEQA Study EIR to be certified by the Board of Supervisor - 2nd Quarter 2022
- ❖ Pre-Construction Engineering & Design (PED) – Draft Design Agreement was underway but requires PED funds to complete
- ❖ Project was not included in the USACE 2022 Work Plan for funding PED (next) phase
- ❖ Eventual USACE Project Partnership Agreement (PPA) after Authorization via WRDA bill. OCPW considering Other Funding Methods with USACE- Section 1043
- ❖ Cost Share for Construction: USACE 65% + OC 35% (for NED). Build now, apply as credit toward future project cost share
- ❖ State Subvention Funds- Project has been added to the program. Advocacy efforts shifting to getting funds for program. OCPW is beginning work with consultant to prepare the Floodplain Management Plan allowing County to be eligible for SSFs if they become available in the future.

## Current & Future Activities (cont.)

### ❖ OCPW continues construction of reaches for Work-In-Kind Credit.

The Schedule for Construction by OCPW :

- EGGW (C05) - Warner to Goldenwest – FY 19-20 – Construction awarded June 2020 and in progress (NTP Sept 2020). Project is 100% complete on March 24, 2023 (Final Walk).
- C05- Bridges at Warner Av., Springdale and Edwards FY 22-23  
Bridge improvements Phase will allow ultimate improvements to system. Construction Manager at Risk (CMAR) design and construction awarded November 2022. Design is 90% complete, Construction is anticipated to begin Spring 2023.
- C05-Warner Ave Bridge at Huntington Harbor FY 25-26
- C05- Tidegates to 1,200 d/s of Goldenwest FY 26-27, 27-28, 28-29
- C05- Confluence w/ C06 to Woodruff – FY 28-29, 29-30

### ❖ FEMA Floodplain: Eventual removal by FEMA Letter of Map Revision (LOMR) beginning with lower reach

## EGGW (C05) - Warner to Goldenwest

Pre-Construction



Post-Construction



## EGGW (C05) - Warner to Goldenwest

Jul 13, 2021 at 9:24:12 AM



Aug 30, 2021 at 9:20:29 AM





An aerial photograph of a residential street that has been completely flooded. The water is a dark, murky blue-grey color, covering the entire road surface. On the right side of the road, there is a white concrete curb and a metal guardrail. In the background, several houses with light-colored roofs and some trees are visible, partially obscured by the floodwater. The overall scene is dimly lit, suggesting an overcast day or early morning/late evening. The text 'QUESTIONS ?' is overlaid in the center of the image in a bold, yellow, sans-serif font with a blue outline.

**QUESTIONS ?**