



# **Chino Valley Chamber of Commerce – Appetite for Advocacy**

**March 27, 2023**

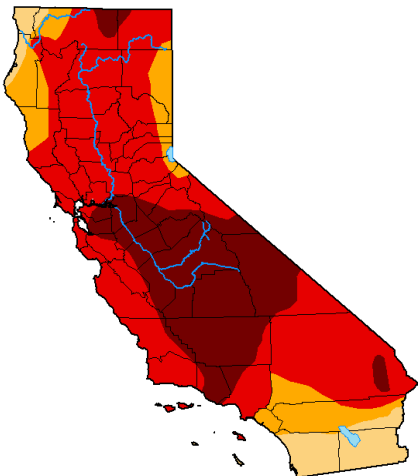


# The Water Supply Crisis in California

- ▶▶ Historic loss of snowpack in the Sierra Nevada Mountains has increased frequency and duration of dry periods
- ▶▶ Water supply reserves are diminishing at a rapid pace
- ▶▶ Extended dry periods create additional stress on protected native species
- ▶▶ Constraints on imported water supplies puts strain on regional water supplies

**Even with current rainstorms providing temporary relief, most of the state is still considered to be in moderate to severe drought conditions. California's water supply still remains unreliable and current supplies won't be enough for future drought years.**

**U.S. Drought Monitor  
California**



**November 30, 2021  
(Released Thursday, Dec. 2, 2021)  
Valid 7 a.m. EST**

|   | Drought Conditions (Percent Area) |        |        |       |       |       |
|---|-----------------------------------|--------|--------|-------|-------|-------|
|   | None                              | D0-D4  | D1-D4  | D2-D4 | D3-D4 | D4    |
| Current                                 | 0.00                              | 100.00 | 100.00 | 92.43 | 80.28 | 28.27 |
| Last Week<br>11-23-2021                 | 0.00                              | 100.00 | 100.00 | 92.43 | 80.28 | 28.27 |
| 3 Months Ago<br>08-31-2021              | 0.00                              | 100.00 | 100.00 | 95.56 | 88.37 | 47.40 |
| Start of<br>Calendar Year<br>12-01-2020 | 0.00                              | 100.00 | 96.17  | 74.34 | 33.75 | 1.19  |
| Start of<br>Water Year<br>03-26-2021    | 0.00                              | 100.00 | 100.00 | 93.93 | 87.88 | 45.66 |
| One Year Ago<br>12-01-2020              | 3.46                              | 96.54  | 75.03  | 48.19 | 19.36 | 0.00  |

**Intensity**  
 None  
 D0 Abnormally Dry  
 D1 Moderate Drought  
 D2 Severe Drought  
 D3 Extreme Drought  
 D4 Exceptional Drought

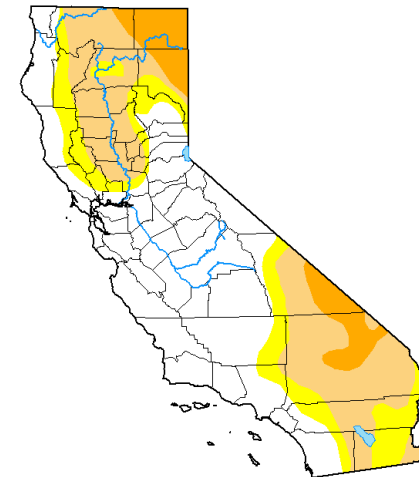
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

**Author**  
Richard Heim  
NCEI/NOAA



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

**U.S. Drought Monitor  
California**



**March 21, 2023  
(Released Thursday, Mar. 23, 2023)  
Valid 8 a.m. EDT**

|   | Drought Conditions (Percent Area) |        |        |       |       |       |
|---|-----------------------------------|--------|--------|-------|-------|-------|
|   | None                              | D0-D4  | D1-D4  | D2-D4 | D3-D4 | D4    |
| Current                                 | 48.51                             | 51.49  | 35.88  | 8.49  | 0.00  | 0.00  |
| Last Week<br>03-14-2023                 | 44.66                             | 55.34  | 36.42  | 8.49  | 0.00  | 0.00  |
| 3 Months Ago<br>12-20-2022              | 0.00                              | 100.00 | 97.94  | 80.56 | 35.50 | 7.16  |
| Start of<br>Calendar Year<br>01-01-2023 | 0.00                              | 100.00 | 97.93  | 71.14 | 27.10 | 0.00  |
| Start of<br>Water Year<br>09-27-2022    | 0.00                              | 100.00 | 99.76  | 94.01 | 40.91 | 16.57 |
| One Year Ago<br>03-22-2022              | 0.00                              | 100.00 | 100.00 | 93.65 | 37.69 | 0.00  |

**Intensity**  
 None  
 D0 Abnormally Dry  
 D1 Moderate Drought  
 D2 Severe Drought  
 D3 Extreme Drought  
 D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

**Author**  
Curtis Riganti  
National Drought Mitigation Center

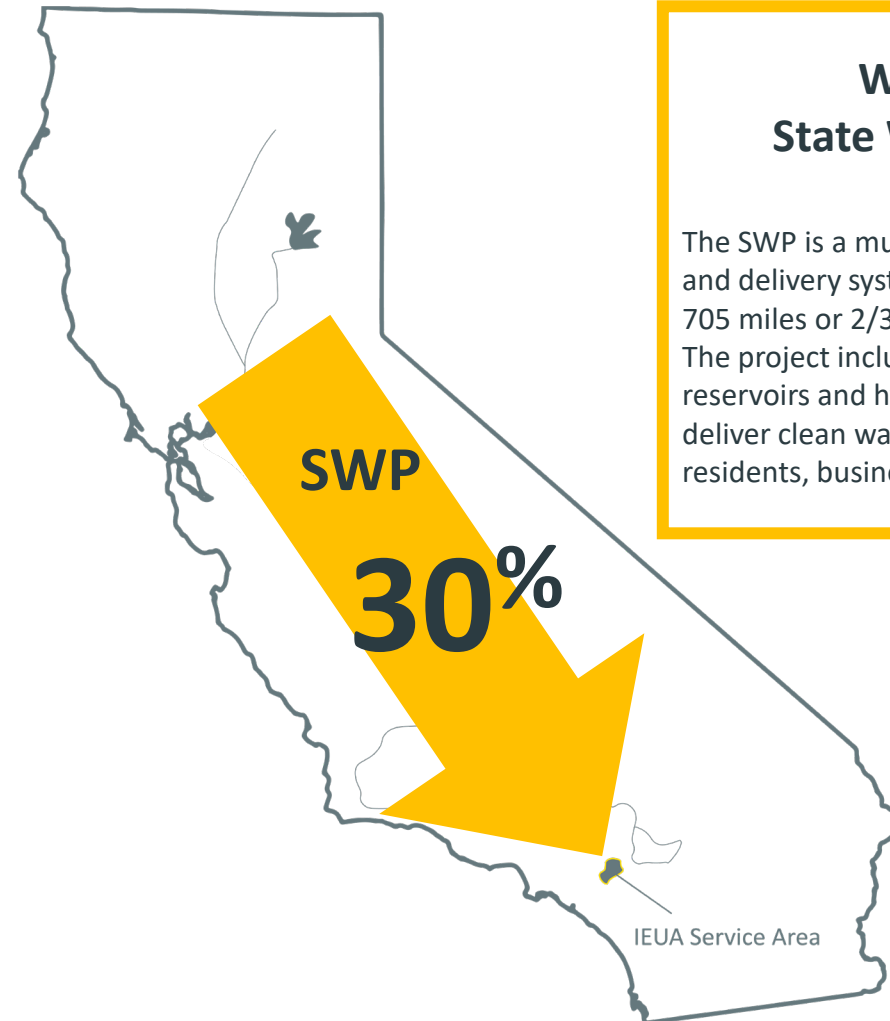


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)



# Current Conditions in the Chino Basin

- The Chino Basin is one of the largest groundwater basins in Southern California
- Today, the Chino Basin relies upon imported water from the State Water Project (SWP) **for 30% or more of its water supplies**
- Sometimes, drought restrictions limit the amount of water available from the SWP
- What will we rely on when water imports are limited?



## What is the State Water Project?

The SWP is a multi-purpose water storage and delivery system that extends more than 705 miles or 2/3<sup>rd</sup>s of the length of the state. The project includes canals, pipelines, reservoirs and hydropower facilities that deliver clean water and energy to California residents, businesses, and farms.



# Current Conditions in the Chino Basin

▶ Local customer agencies also rely on groundwater and **recycled water** to serve their communities

| Customer Agency                 | Current Reliance on Imported Water | Current Ability to Use/Access Recycled Water Allocation |
|---------------------------------|------------------------------------|---|
| Chino                           | 22%                                | 91%   |
| Chino Hills*                    | 10%                                | 62%   |
| Cucamonga Valley Water District | 69%                                | 38%   |
| Fontana                         | 35%                                | 33%   |
| Montclair                       | 36%                                | 42%   |
| Ontario                         | 14%                                | 96%   |
| Upland                          | 23%                                | 44%   |

**Recycled water supply primarily comes from treated wastewater and is typically used in non-potable applications such as landscaping, recreational ponds and lakes, industrial use, stream and wetland restoration, and groundwater recharging.**

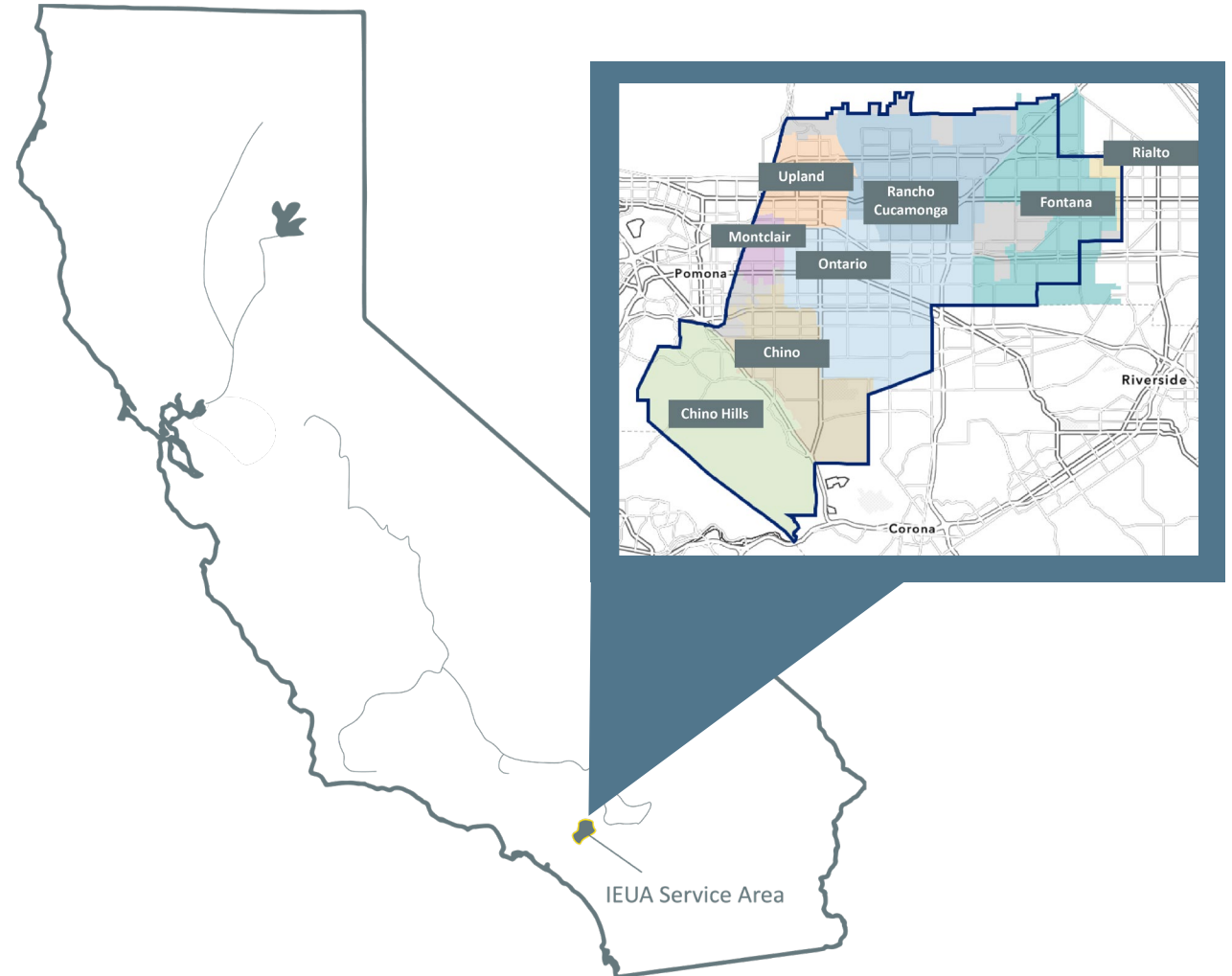




# One solution that will help with local reliability: Chino Basin Program

Chino Basin Program (CBP) adds infrastructure so we can treat and store more water locally:

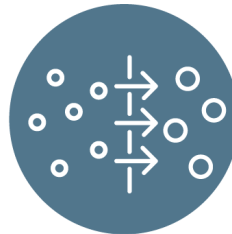
- ▶▶ CBP is a series of innovative water treatment and storage projects
- ▶▶ Designed to modernize storage and delivery systems of regional water supplies
- ▶▶ Improves local water supply reliability
- ▶▶ \$215 million in conditional funding invested by the state





# Improvement: Advanced Purification

- Construction of an Advanced Water Purification Facility at IEUA's existing Regional Water Plant No. 4 in Rancho Cucamonga
- Creates 375,000 acre feet (AF) of new, advanced purified recycled water over a 25-year period
  - What is an acre foot? A sheet of water one acre in area and one foot in depth
  - 1 acre foot = roughly 326,000 gallons of water
  - An average California household uses between one-half and one acre foot of water per year
- Advanced Purification creates the opportunity to transform recycled water into drinking water quickly and safely



IEUA's Regional Water Recycling Plant No. 4 in Rancho Cucamonga.

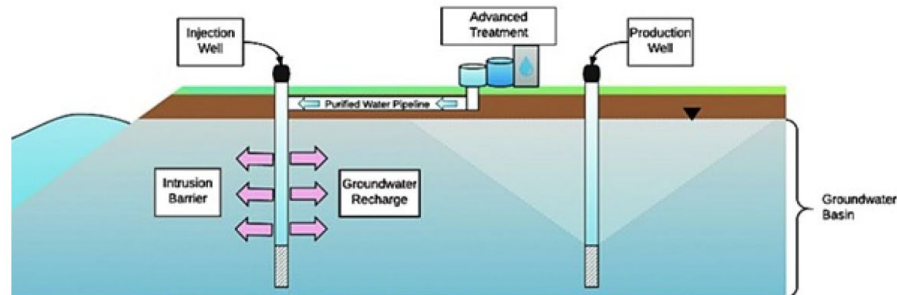




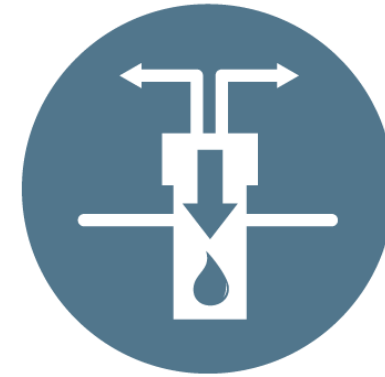
# Improvement: Aquifer Replenishing Wells

➤ Storage is major challenge in our current water supply crisis

- We are effectively maximizing our groundwater basin recharge today – so what happens when we develop 15,000 AF of new water each year through the Chino Basin Program?
- We develop new recharge capacity through Aquifer Replenishing Wells
- An Aquifer Replenishing Well is used to place fluid underground into porous geologic formations



The City Of Pismo Beach /



Aquifer Replenishing Wells

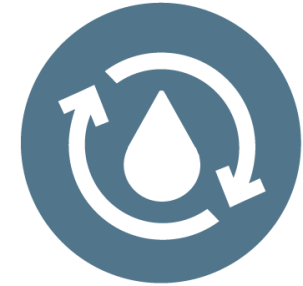
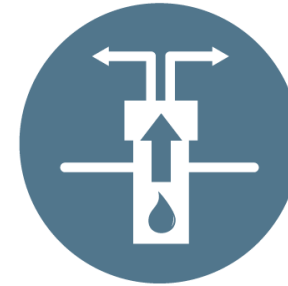




# Improvement: Production Facilities

➤ Once the new, advanced purified water is in the ground – how do we get it out to use it?

- The CBP will develop new production facilities that will pump this new water supply out of the ground
- An additional benefit of these production facilities is increasing access to existing recycled water supplies that are not currently being maximized
- Ability to increase groundwater production to meet community needs if/when imported water supplies are constrained







# Improvement: New Pipelines

## ► Where do we get the supply to develop the new advanced purified water?

- Development of pipelines to connect into partner systems like the City of Rialto; purchasing excess recycled water supplies
  - New pipelines will help efficiently utilize and access recycled water supplies and promote sustainability
- CBP proposes the construction of new:
  - Recycled Water Pipelines
  - Purified Water Pipelines
  - Extraction Well Pipelines
- New CBP pipelines will connect existing and proposed facilities like a new Advanced Water Purification Facility and Recycled Water Booster Pump Stations to proposed and existing reservoirs, extraction wells, aquifer replenishing wells and Metropolitan Water District mainlines.



IEUA Regional Water Recycling Plant No. 1 Pipelines

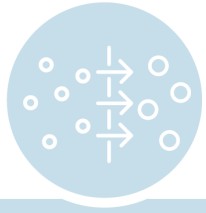


# CBP Infrastructure Components





# Infrastructure Components

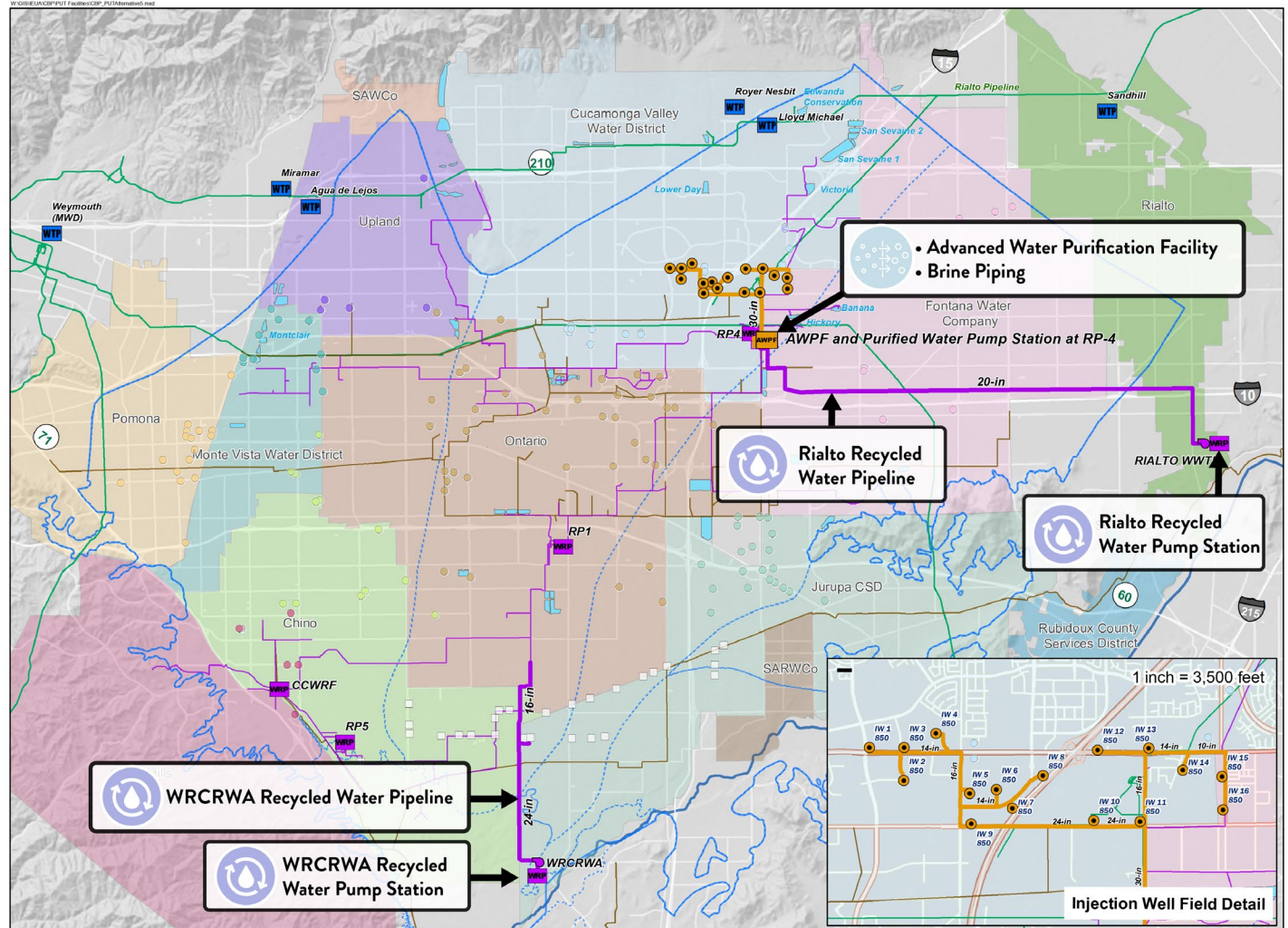


Recycled Water Supply External

Advanced Water Purification Facility

- A. Rialto Recycled Water Pump Station
- B. Rialto Recycled Water Pipeline
- C. WRCRWA Recycled Water Pump Station
- D. WRCRWA Recycled Water Pipeline

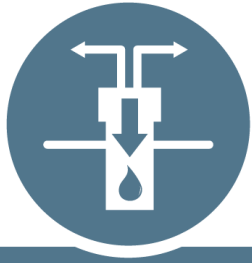
- A. AWPf
- B. Brine Piping





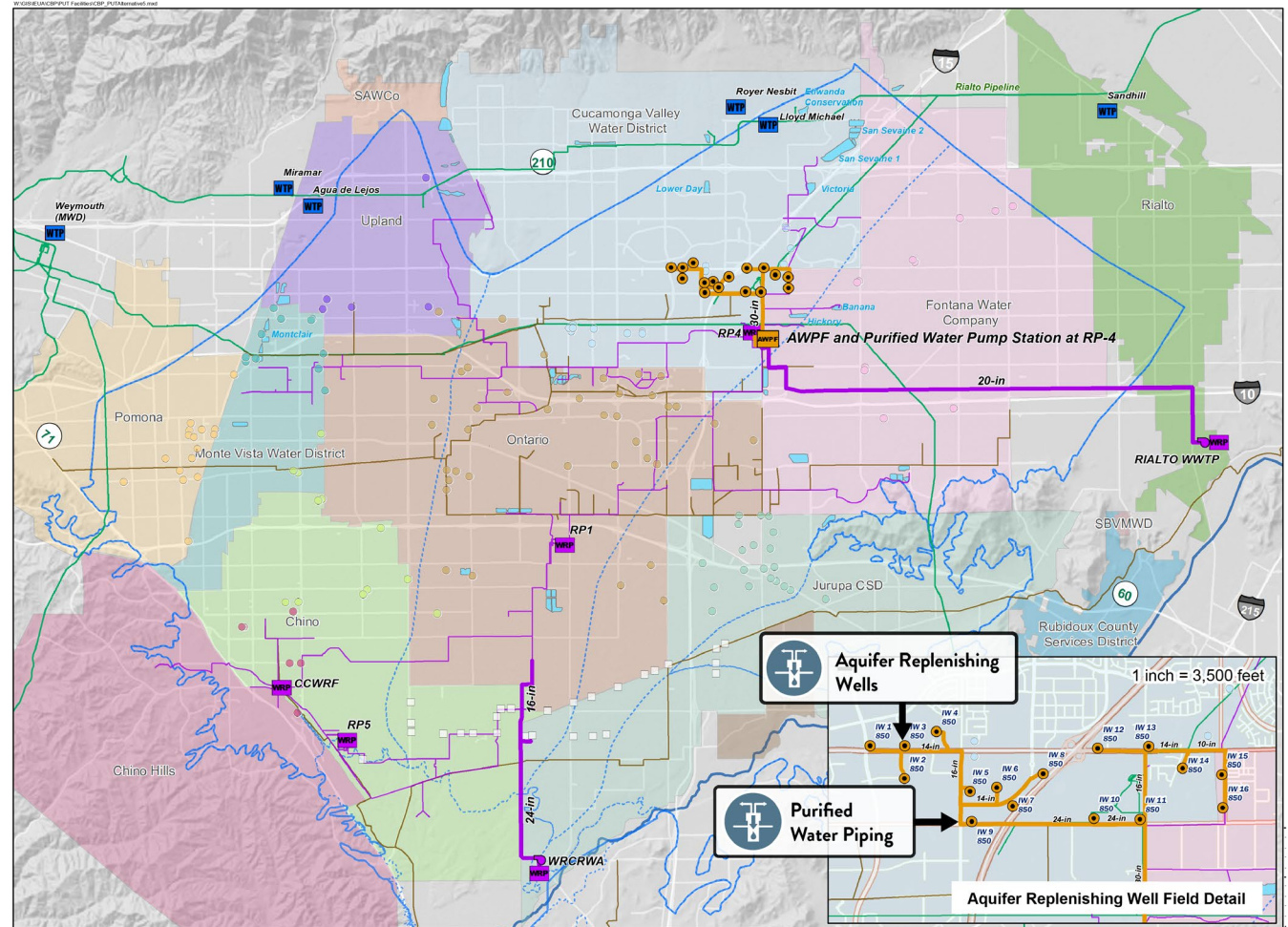


# Infrastructure Components



Aquifer Replenishing Wells

- A. Purified Water Piping
- B. Aquifer Replenishing Wells







# Infrastructure Components



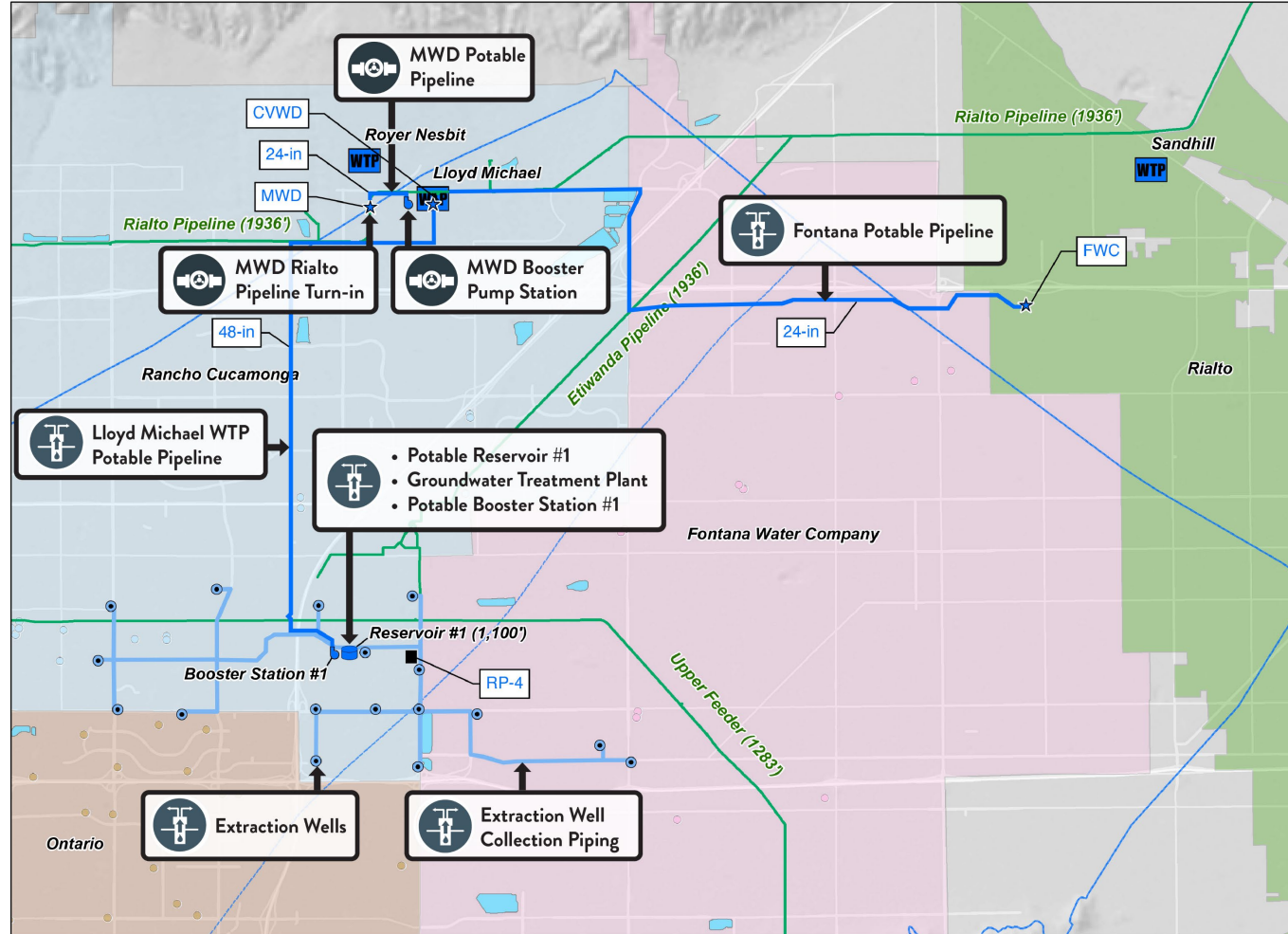
Extraction  
& Regional  
Distribution



Metropolitan  
Water District  
Connection

- A. Extraction Wells
- B. Extraction Well Collection Piping
- C. Potable Reservoir #1
- D. Groundwater Treatment Plant
- E. Potable Booster Station #1
- F. Lloyd Michael WTP Potable Pipeline
- G. Fontana Potable Pipeline

- A. MWD Booster Pump Station
- B. MWD Potable Pipeline
- C. MWD Rialto Pipeline Turn-in/Fontana Potable Pipeline



MWD  
Connection



Extraction  
& Regional  
Distribution



# Local and Economic Benefits of CBP

- Enhance local water supply through the development of new, advanced purified water
- Price point for locally produced and stored water will be locked in, while imported water is variable, helping to stabilize rates for participating agencies and taxpayers
- Allows for more local control and consistent supply
- Will help with sustainable residential and commercial growth in the Inland Empire by further securing local water supplies
- Construction anticipated to begin in 2026 and continue for at least two years, providing hundreds of jobs across multiple sectors and increased regional spending





# Local Environmental Benefits of CBP

- ▶ Program adheres to conservation plans laid out in the Upper Santa Ana River Habitat Conservation Plan
- ▶ The Rialto Recycled Water intertie project (part of CBP) will help alleviate high temperature flows to the Santa Ana River
  - High temperature flows negatively impact native fish species like Santa Ana Sucker Fish and the Arroyo Chub





# Statewide Environmental Benefits of CBP

- Contributes to environmental flow volumes
- Newly stored local water supplies will be used by CBP participating agencies instead of imported water from northern California
- Will allow for additional releases from Oroville Reservoir to the Feather River to support the Bay Delta ecosystem
- The local use of CBP water will help to facilitate pulse flows when called upon by the state to benefit native fish species, primarily, the endangered Chinook salmon







# What's Next for the CBP?



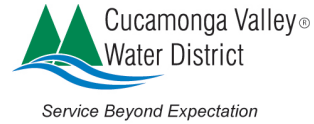
In 2023:

- Finalizing term agreements with participating agencies
- Pursuing additional grant and loan funding opportunities
- Construction of exploratory borings in the City of Rancho Cucamonga
- Completion of preliminary design reports for the CBP infrastructure



# Chino Basin Program Partners & Supporters

## Partners



## Supporters





# Contact Us



**Website Contact Form:**  
[chinobasinprogram.org/contact](http://chinobasinprogram.org/contact)



**CBP Email**  
[chinobasinprogram@ieua.org](mailto:chinobasinprogram@ieua.org)

We will respond to messages received during the normal IEUA business week (M-Th) within 72 hours.