CBP

CHINO BASIN PROGRAM

Overview Presentation

Long-Term Water Supply Challenges

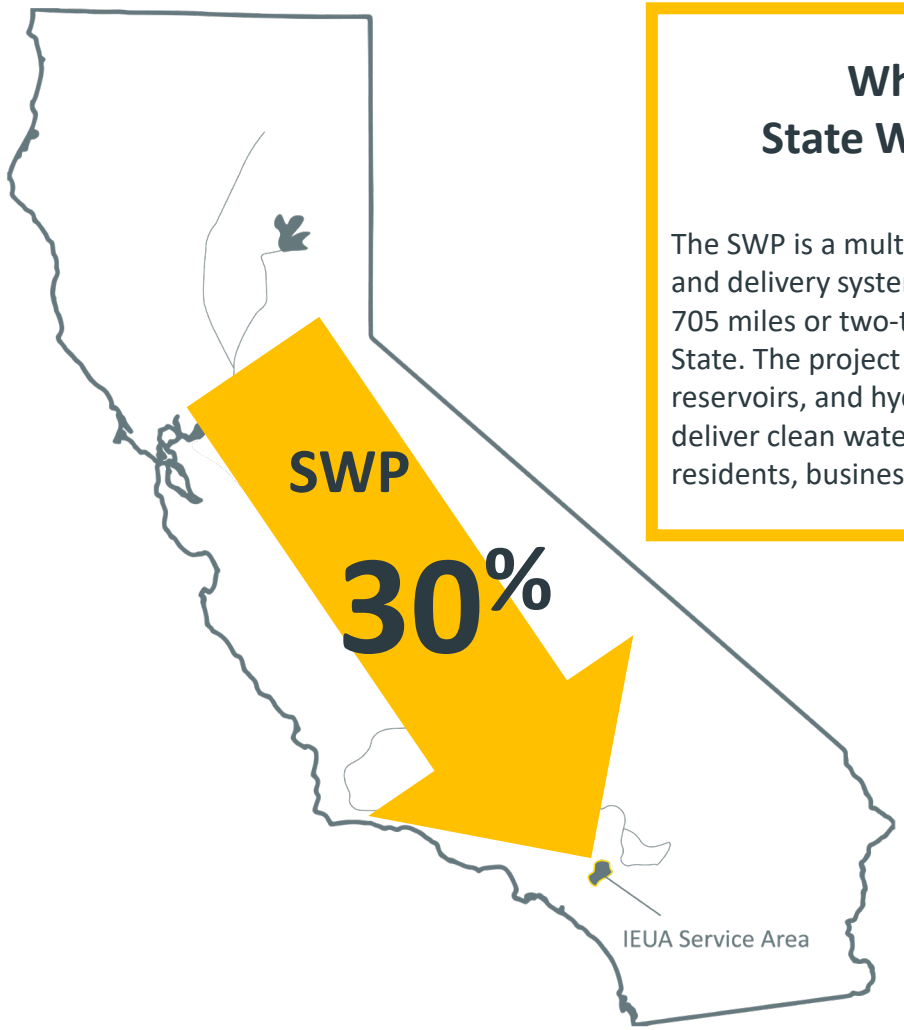
- A series of powerful winter storms drastically relieved drought conditions in early 2023 but one season of rain is not enough to address long-term water supply needs
- Unpredictable rainstorms are unreliable as a strategy to future proof our long-term water supply
- Rising temperatures experienced over the last 40 years are forecasted to continue, intensifying pressure on our long-term water supply needs.
- California continues to face many challenges in effectively capturing and storing water, amplifying concerns for overall long-term needs.

Lake Oroville June 2018

Lake Oroville July 2021

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 two-thirds 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

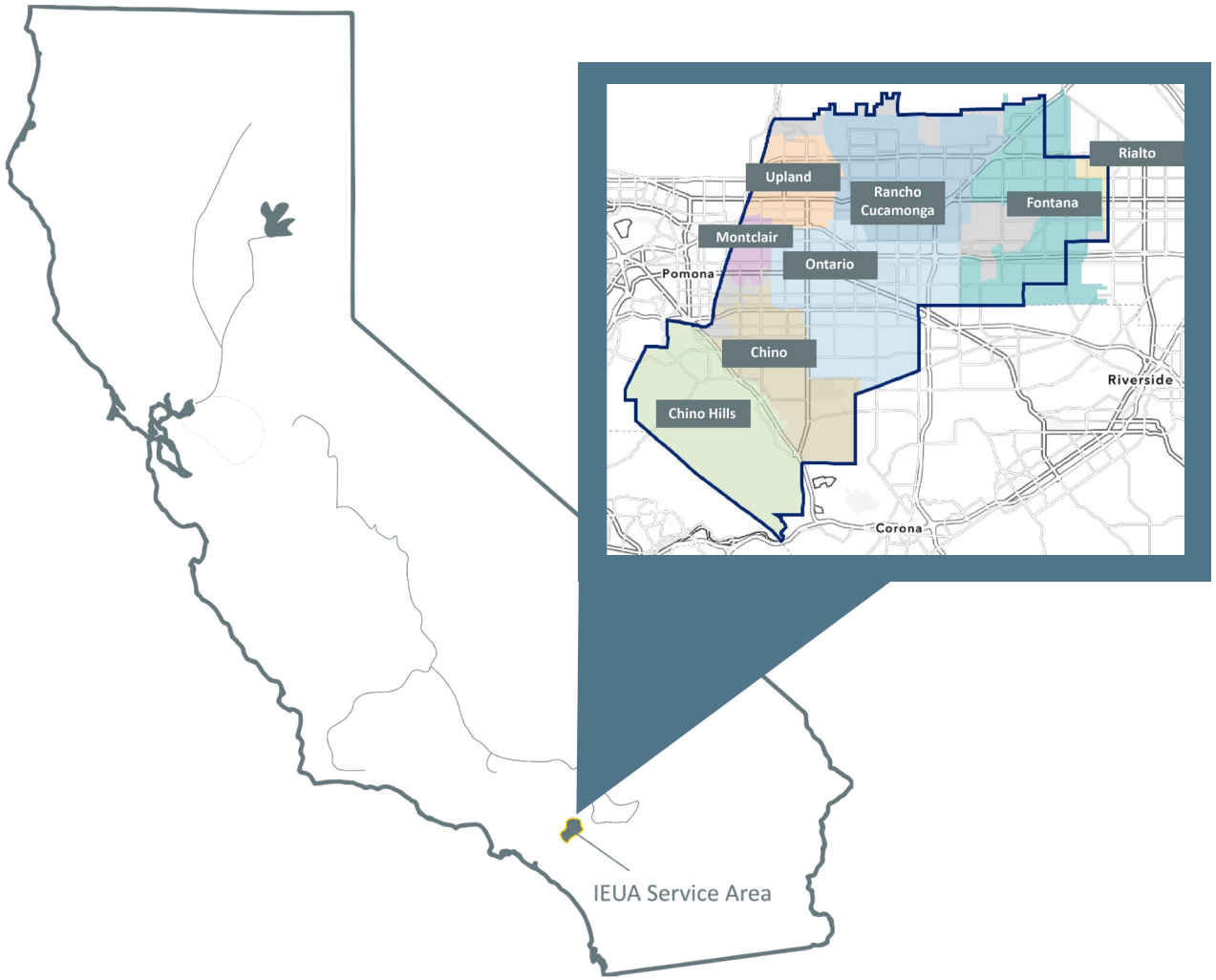
Customer Agency	Current Reliance on Imported Water	Current Ability to Use/Access Recycled Water Allocation
Chino	22%	91%
Chino Hills	10%	62%
Cucamonga Valley Water District	69%	38%
Fontana	35%	33%
Montclair	36%	42%
Ontario	14%	96%
Upland	23%	44%

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 recharge.

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:

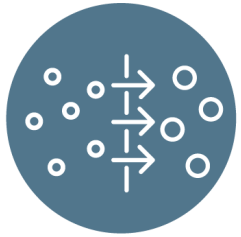
- CBP is a series of innovative water treatment and storage projects
- Designed to modernize storage and delivery systems of regional water supplies
- Improves local water supply reliability



Improvement: Advanced Purification

- Construction of an Advanced Water Purification Facility at IEUA's existing Regional Water Recycling 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

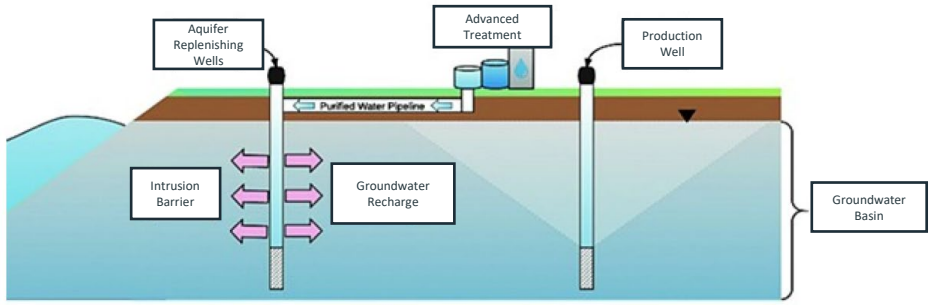


- Advanced Purification creates the opportunity to transform recycled water into drinking water quickly and safely

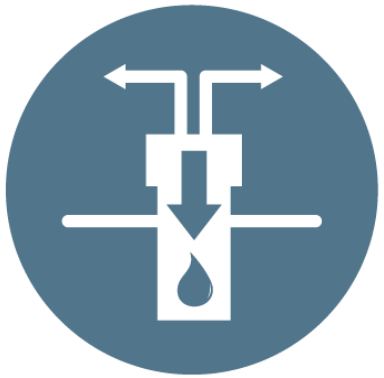
IEUA's Regional Water Recycling Plant No. 4 in Rancho Cucamonga.

Improvement: Aquifer Replenishing Wells

- Storage is a 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 /

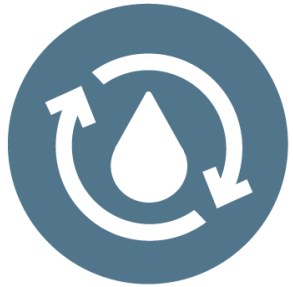


Aquifer Replenishing Wells

Storage Capacity Increases

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

A. Rialto Recycled Water Pump Station

B. Rialto Recycled Water Pipeline

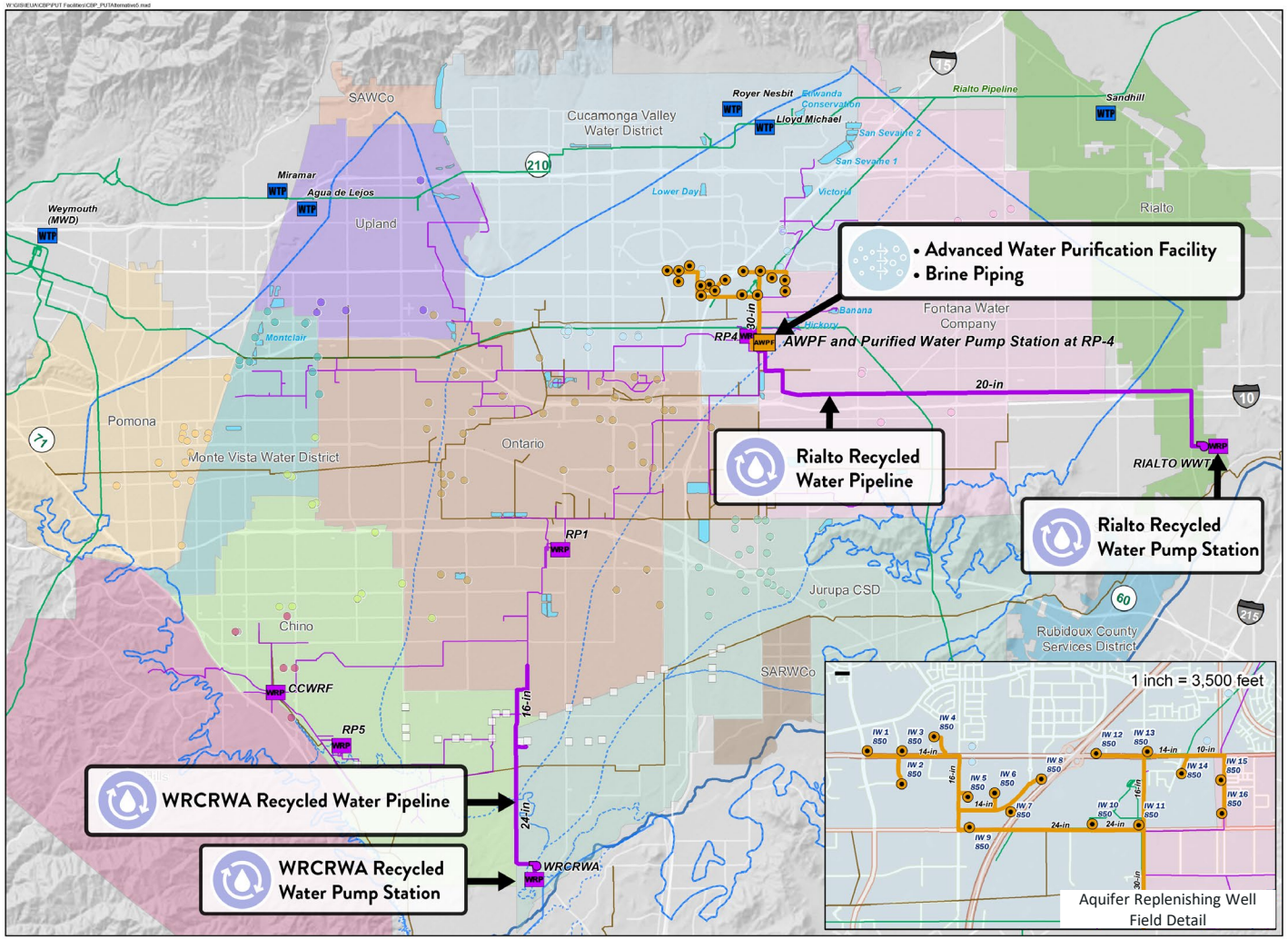
C. WRCRWA Recycled Water Pump Station

D. WRCRWA Recycled Water Pipeline

Advanced Water Purification Facility

A. AWPF

B. Brine Piping



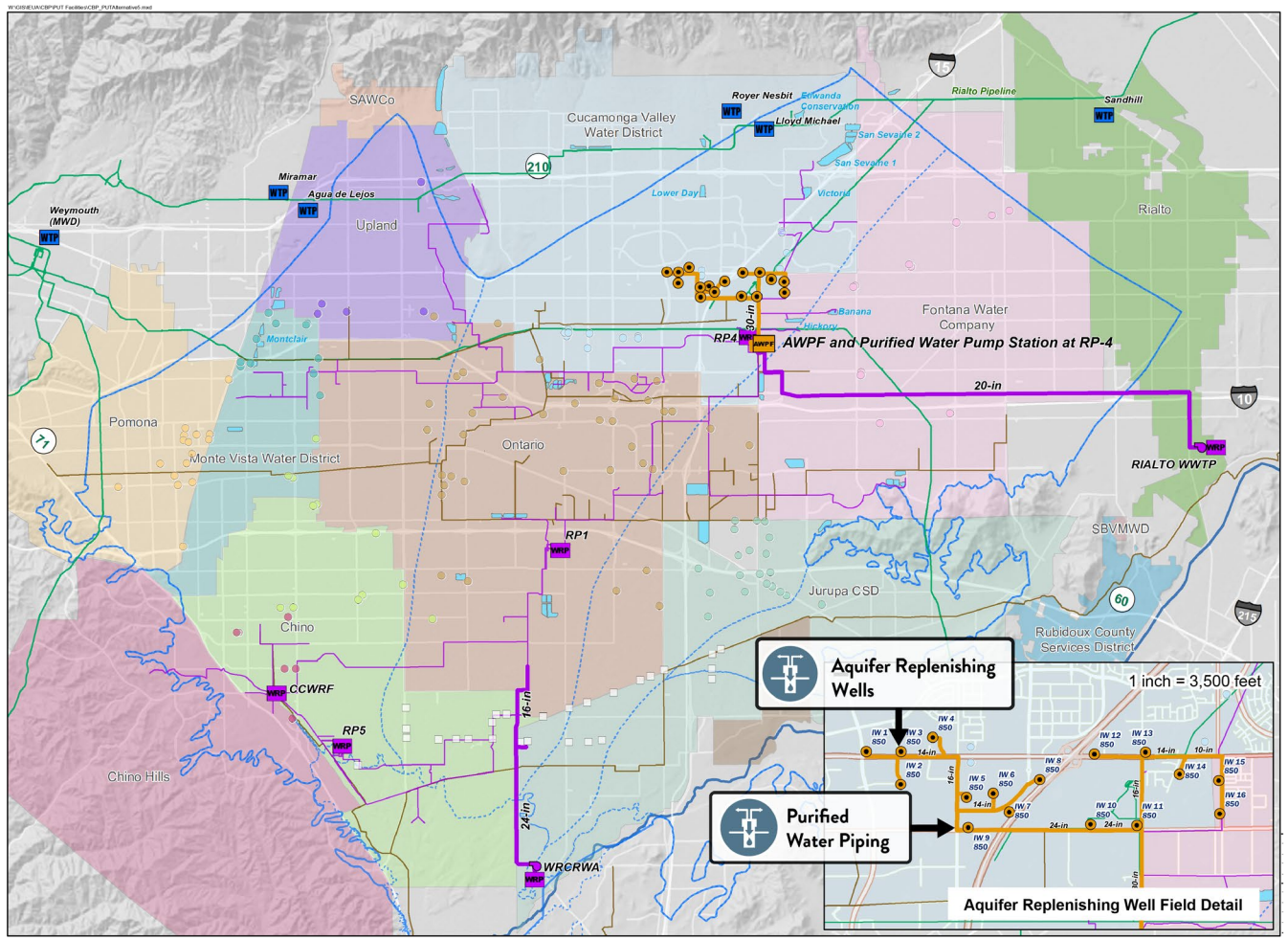
**Western Riverside County Regional Wastewater Authority*

Infrastructure Components

Aquifer Replenishing Wells

A. Purified Water Piping

B. Aquifer Replenishing Wells



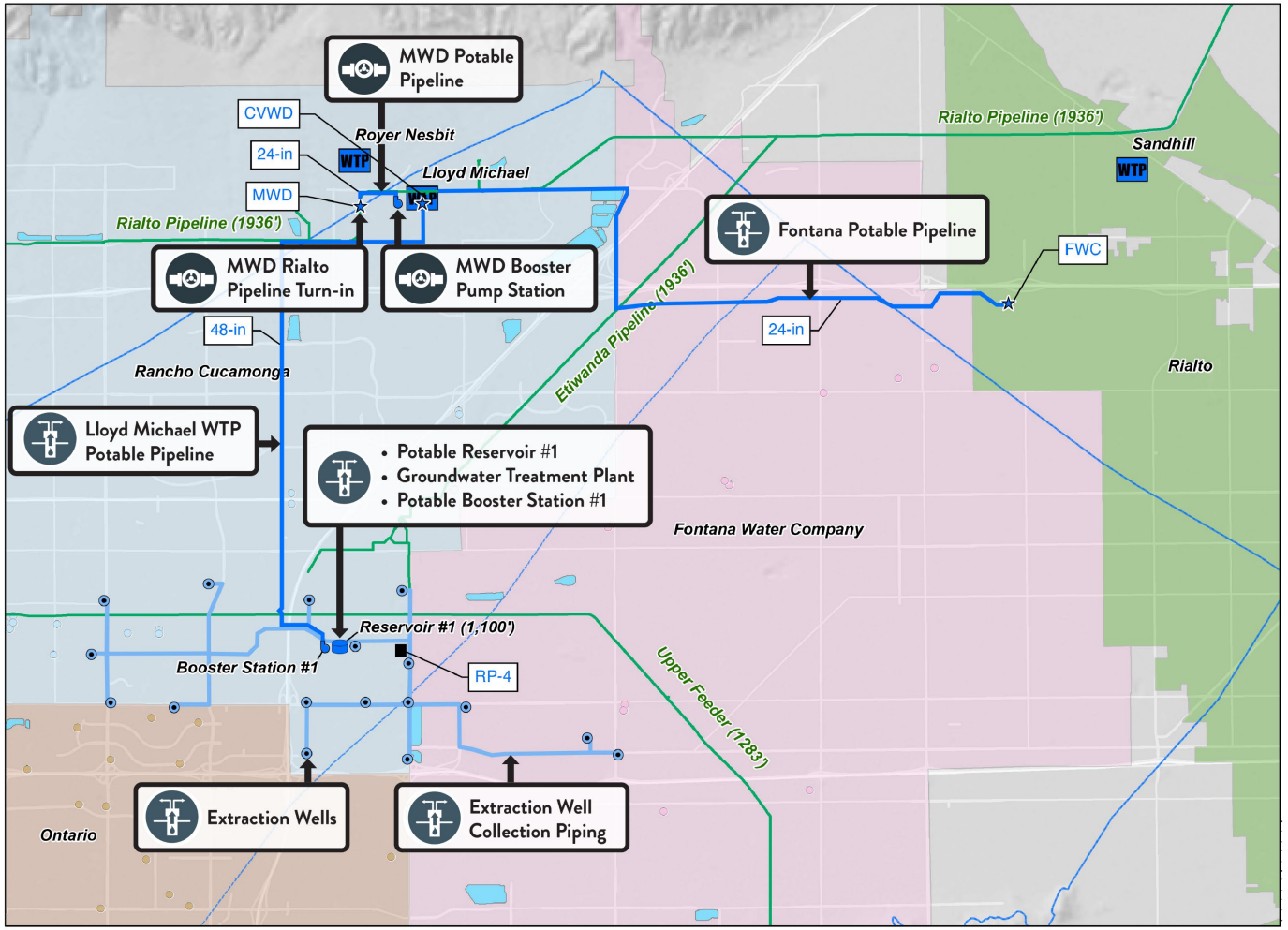
Infrastructure Components

Extraction & Regional Distribution

- **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

Metropolitan Water District Connection

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



MWD Connection

Extraction & Regional Distribution

CBP

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 four 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 partner agencies during critically dry periods 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 2024:

- Finalized term agreements with partner agencies
- Began construction of exploratory borings in the city of Rancho Cucamonga
- Completed multiple preliminary design reports for the CBP infrastructure
- Continuing to pursue additional grant and loan funding opportunities

Chino Basin Program Partners & Supporters

Partners

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Jurupa
COMMUNITY SERVICES DISTRICT
Proudly serving Jurupa Valley and Eastvale

FONTANA WATER COMPANY

Cucamonga Valley Water District
Service Beyond Expectation

CITY OF RIALTO

Supporters

Three Valleys MWD

City of Pomona

Chino Basin Water Conservation District

City of Chino Hills

Chino Basin Watermaster

Western Municipal Water District

Fontana California

The Nature Conservancy

Chaffey College

Inland Empire Economic Partnership

American Rivers
Thriving By Nature

SAWPA

Pacific Coast Federation of Fishermen's Associations
PCFFA
Stewards of the Fisheries

GoldenGate Salmon Association

CGEA Golden Gate Fishermen's Association

California Water Boards

Trout Unlimited

California State University San Bernardino
Institute for Watershed Resiliency

Inland Empire Waterkeeper

Ultimate Source

Chino Valley Chamber of Commerce

CDA Chino Basin Desalter Authority

Western States Carpenters

Contact Us

Website Contact Form:
chinobasinprogram.org/contact

@ChinoBasinProgram

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