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PASSCODE: 3802020

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Please use the chat feature in the Zoom toolbar to let the moderator know that you would like to make a comment during the meeting or use the digital “raise hand”  function in Zoom.



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Call to Order

Board of Directors Workshop- Engineering
Tuesday, July 13, 2021

Chairperson – Director Harrison
Vice-Chair – Director Hayes



NOTICE REGARDING (COVID-19)

Before we begin, the record will reflect that pursuant to the provisions of Executive Order N-29-20 issued by Governor Gavin Newsom on March 19, 2020, this meeting will be conducted by teleconference only.

Introductions

Following the introduction of Directors and District staff, participants may use this time to state their name and agency/affiliation in order to be included in the formal record of attendees.

Public Comment

Any person may address the Board on matters within its jurisdiction.

- *Please use the chat feature on the Zoom toolbar or digitally raise your hand to let the moderator know you would like to make a comment.*



Summary of Previous Meeting (Pg. 3)

Board of Directors Workshop – Engineering
June 8, 2021

Discussion Item 4.1 (Pg. 8)

Heather Dyer, MS, MBA – Chief Executive Officer/General Manager

Consider the Joint Exercise of Powers Agreement to create the Upper Santa Ana River Watershed Infrastructure Financing Authority Supporting a 2021 Water Infrastructure Finance and Innovation Act (WIFIA) Regional Letter of Interest

Staff Recommendation

Authorize staff to place the JPA Agreement on the July 20th Board of Directors Agenda for consideration.

Watershed
Connect



*Achieving resilience through
integrated infrastructure*

Program Need

The Upper SAR Watershed, spanning over 850 square miles in San Bernardino and Riverside Counties in southern California, is a highly connected system of surface water, groundwater, and rich habitat that the region depends on for its local water supply.



Program Need

For many years, the San Bernardino Valley has been challenged by prolonged drought, increased wildfires, and climate uncertainty. In response, the region, which relies heavily on imported water, is investing in collaborative solutions to diversify its water supply portfolio, recharge its groundwater basins, restore critical habitat and secure a sustainable water future.



Program Purpose

WATERSHED CONNECT's purpose is to achieve regional water supply security, resilience to extended drought and the effects of climate change and holistically enhance the health of the Upper SAR Watershed.



Program Description Statements

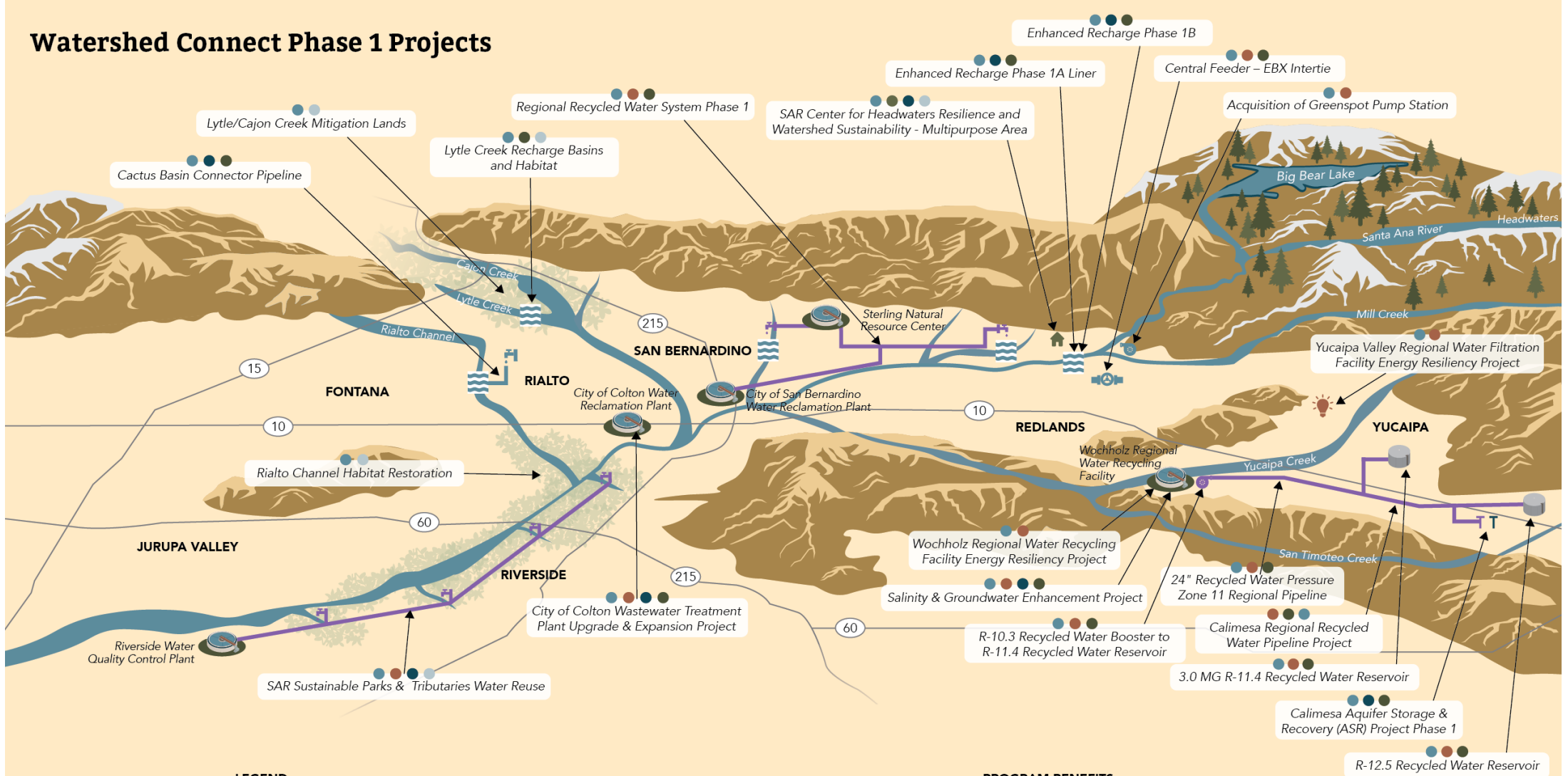
WATERSHED CONNECT is a **regional infrastructure program**, a network of forward-looking projects designed to achieve water supply reliability, climate resilience, and long-term ecological health of the Upper Santa Ana River (Upper SAR) Watershed.

WATERSHED CONNECT is a **multiphase program** comprised of interconnected water capture, recharge, storage, treatment, and conveyance projects. This comprehensive package of infrastructure projects will collectively maximize the use and reuse of local water resources, while attaining a healthy, functional river ecosystem that supports 22 federally and state-protected species

WATERSHED CONNECT innovative approach maximizes program value and offers **synergistic benefits** to the watershed and its people.

SYNERGY: the interaction or cooperation of two or more organizations, elements, or other agents to produce a combined effect greater than the sum of their separate effects

Watershed Connect Phase 1 Projects



LEGEND

- Wastewater Treatment Plant
- Natural Waterway or Channel
- Groundwater Recharge Basin
- Habitat Restoration Area
- Recycled Water Turnout
- Recycled Water Pipeline
- Recycled Water Pump Station
- Recycled Water Reservoir
- State Water Project Turnout
- Raw Water Pipeline
- Raw Water Pump Station
- Injection and Extraction Well

PROGRAM BENEFITS

- Resilience in the Face of Climate Change
- Infrastructure Enhancements
- Drought Resiliency
- Improved Water Quality
- Ecological Health

Watershed *Connect*

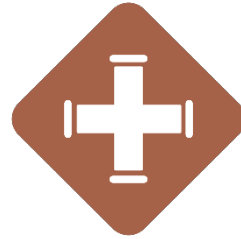


*Achieving resilience through
integrated infrastructure*

Program Benefits



Resiliency in the face of climate change: The collection of forward-looking recycled water, stormwater capture, groundwater storage, alternative energy, and ecosystem restoration projects will improve water supply security. Investments in alternative water supplies, emergency storage, and system redundancies enhance the regions' resilience to climate threats.



Infrastructure Enhancements: Modernization of existing infrastructure combined with new conveyance systems are planned to create enhanced water resources. Upgrades, including pipeline protection initiatives and solar energy projects, will reduce climate-related vulnerabilities and ensure reliable services during natural disasters.



Drought Resiliency: The program's ambitious stormwater capture, groundwater recharge, and water reuse projects position the region to sustain short and long-term droughts.



Improved Water Quality: Advanced treatment upgrades will improve regional water quality by reducing the amount of salt, nutrients, and emerging contaminants introduced to surface waters and groundwater basins. Proposed stormwater capture and treatments projects will produce high-quality water for blending with groundwater supplies high in total dissolved solids.



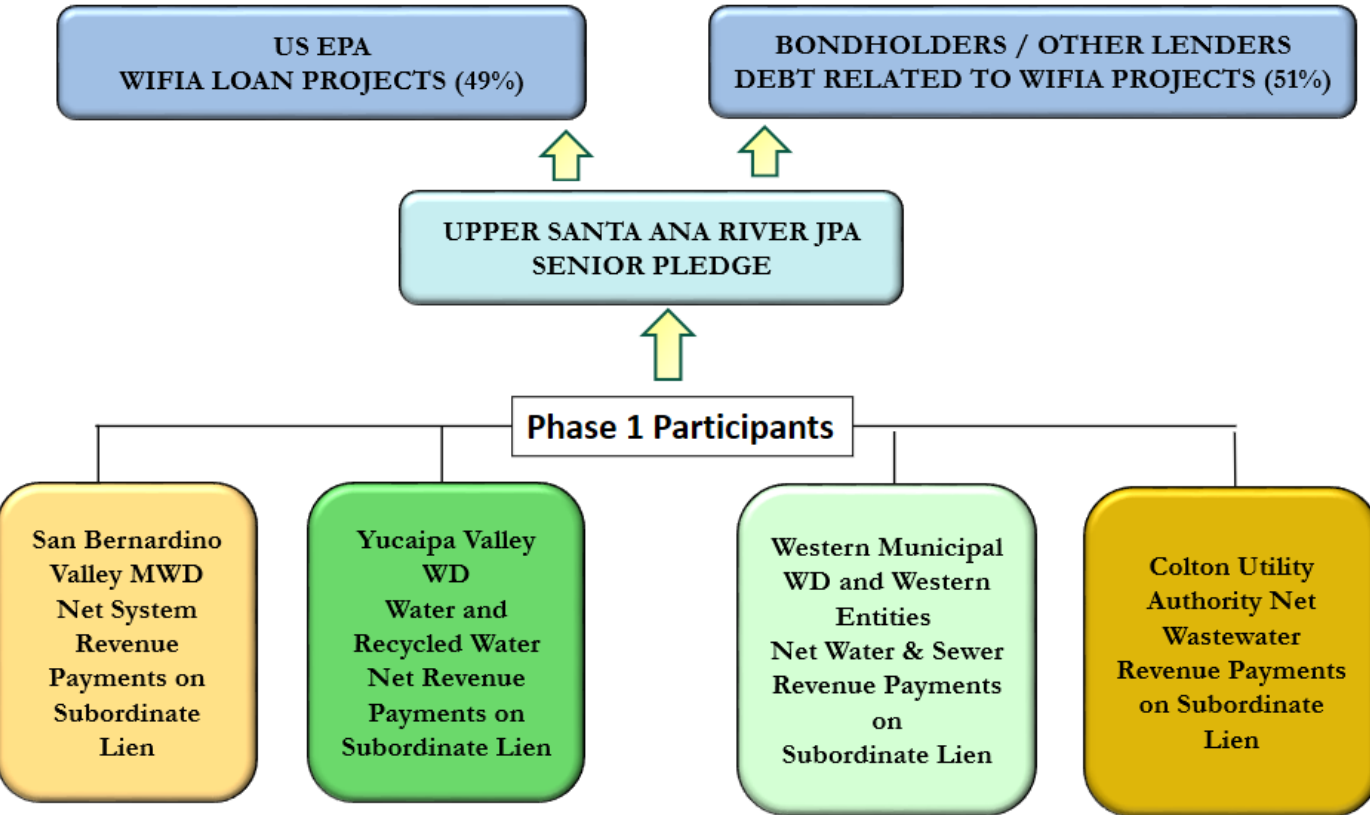
Ecological Health: The proposed habitat mitigation and restoration initiatives enhance the health of the Upper SAR Watershed, supporting the region's urban, environmental, recreational, and economic needs.

Upper Santa Ana River Watershed Infrastructure Financing Authority

The Upper Santa Ana River Watershed Infrastructure Financing Authority (USAR WIFA), a Joint Powers Authority comprised of water agencies, all of whom rely upon the highly connected tributaries, groundwater basins, and natural ecosystems of the Santa Ana River.



JPA SECURITY FLOW OF FUNDS – PHASE 1 PROJECTS



Most projects already identified and prioritized through integrated regional planning efforts and included in the 2020 IRUWMP, Upper Santa Ana River HCP, Wash Plan, and Recycled Water Concept Study, and modeled through the Integrated Model

Approx. \$685 million of projects spread across three phases

- \$359.5 million of estimated project cost in Phase 1
 - Valley District is 61% of the total
- WIFIA loan can be for up to 49% of eligible project cost, approx. \$107 million for Valley District

The other 51% could be from cash, reserves, grants, other debt

Example of Total Project Funding Possibilities - Phases 1 - 3: \$650.8 Million Total Projects



Watershed
Connect



Upper Santa Ana River Watershed
Infrastructure Financing Authority

-An institutional funding framework to build upon a history of regional planning

-Financing structure to support the timely and cost-effective construction of projects in regional plans

Water Infrastructure Finance and Innovation Act (WIFIA) Program administered by U.S. EPA

- WIFIA Letter of Intent (LOI) from the Joint Powers Authority due to EPA on July 23, 2021; no fee to submit LOI
 - AECOM/WSC Contract: \$239,805
 - Additional costs for legal advisor (Stradling Yocca Carlson & Rauth), financial advisor (Fieldman Rolapp), Standard & Poors credit rating for JPA (\$35k fee)

Valley District Board Meeting Consideration of Program and JPA, July 20th

Tentative July 21 JPA Regular Board Meeting:

- Election of a Vice Chair and Secretary to serve one-year terms
- Confirmation of Chair, Treasurer, and Executive Director
- Authorization to file the Joint Exercise Powers Agreement as required by law
- Authorization to submit the Letter of Interest to EPA on behalf of the JPA

Upper SAR Watershed Infrastructure Financing Authority

JPA Board of Directors:

- Representative from Each Agency
- Elected official or staff, and an alternate; equal vote of Directors from each agency
- Designated in Adopted Resolution

JPA Officers:

- Chair (Elected for a one-year term; Valley District to fill the role for initial term)
- Vice Chair (Elected at the first JPA meeting on July 21)
- Secretary (Elected at the first JPA meeting on July 21)
- Treasurer (Valley District Treasurer to serve as an initial period)
- Executive Director (Valley District CEO/GM for an initial period)

JPA Meetings:

- First meeting on Wednesday, July 21- at 8:30 A.M.
- Board may hold special meetings any time; however, actions taken on the sale of Bonds shall occur at a regular meeting only
- Board may suspend the holding of regular meetings if there is no need
- JPA Board may determine alternate time, date or location in accordance with State law

Upper SAR Watershed Infrastructure Financing Authority

Watershed
Connect



*Achieving resilience through
integrated infrastructure*

Agencies considering membership this week or next

1. San Bernardino Valley Municipal Water District
2. San Bernardino Valley Water Conservation District
3. Yucaipa Valley Water District

Agencies considering membership later in the summer

1. Big Bear Area Regional Wastewater Agency
2. City of Colton
3. Western Municipal Water District
- Western Entities
4. San Bernardino Municipal Water District

NEXT STEPS

- **EPA Review of LOI – invitation to submit full application if successful**
- **Draft Project Agreement(s) between Project Partners and JPA**
- **Full application if invited by EPA**
- **Staff will return to the Board of Directors about the application process and future agreements**
- **Seek additional funding sources**

Director Comments and Discussion



Paul Kielhold
President



June Hayes
Vice President



**T. Milford
Harrison**
Treasurer



Gil J. Botello
Director



Susan Longville
Director

Staff Recommendation

1. Authorize staff to place the JPA Agreement on the July 20th Board of Directors Agenda for consideration and
2. Discuss Valley District representative and alternate on the JPA Board of Directors

Discussion Item 4.2 (Pg. 30)

Heather Dyer, MS, MBA – Chief Executive Officer/General Manager
Adekunle Ojo, MPA – Manager of Water Resources

Consider Reimbursement Resolution for Costs Incurred Prior to the Issuance of Tax-Exempt Obligations Related to a Regional WIFIA Application for Water Infrastructure Projects

Staff Recommendation

Authorize staff to place the Reimbursement Resolution on the July 20th Board of Directors Agenda for consideration.

Valley District Potential Project List – Phase I



	Phase I Projects	Estimated Project Cost	Valley District Share	% of Project Cost
1	Greenspot Pump Station Acquisition	\$ 12,000,000	\$ 12,000,000	100
2	Central Feeder-EBX Intertie	\$ 1,887,000	\$ 1,887,000	100
3	Lytle Creek/Cajon Creek Mitigation Lands*	\$ 3,000,000	\$ 3,000,000	100
4	Rialto Channel Habitat Restoration*	\$ 2,088,000	\$ 2,088,000	100
5	SAR Sustainable Parks & Tributaries Water Reuse (Purple Pipe)**	\$ 57,750,000	\$ 57,750,000	100
6	Cactus Basin Connector Pipeline	\$ 1,914,000	\$ 1,914,000	100
7	Regional Recycled Water System Phase I	\$ 48,825,000	\$ 48,825,000	100
8	Enhanced Recharge Phase I B	\$ 60,334,050	\$ 43,440,516	72
9	Enhanced Recharge Phase I A Liner	\$ 892,500	\$ 642,600	72
10	Lytle Creek. Recharge Basins and Habitat*	\$ 6,660,000	\$ 6,660,000	100
11	Center for Headwaters Resilience and Watershed Sustainability **	\$ 40,000,000	\$ 40,000,000	100
	TOTAL	\$ 235,350,550	\$ 218,207,116	92.7

*On behalf of SAR HCP

** In partnership with other entities

Potential WIFIA Loan Amount (49%): \$106,921,487

Reimbursement Resolution for WIFIA Funding

Allows Valley District to pay in advance for various tasks and seek reimbursement after the loan is funded

Through the Resolution, the Board will designate a maximum of \$218,207,116 (District's total share) in expenditures for project administration, design, construction management, and facility construction of Valley District projects

The estimated maximum funding requirement for the WIFIA loan and reimbursement amount is a worst-case scenario according to the current cost estimates.

No fiscal impacts are associated with the adoption of the Resolution

Director Comments and Discussion



Paul Kielhold
President



June Hayes
Vice President



**T. Milford
Harrison**
Treasurer



Gil J. Botello
Director



Susan Longville
Director

Staff Recommendation

Authorize staff to place the Reimbursement Resolution on the July 20th Board of Directors Agenda for consideration.

Discussion Item 4.3 (Pg. 35)

Bob Tincher PE, MS – Chief Water Resources Officer/Deputy GM

Overview of the Draft State Water Project and Central Valley Project Drought Contingency Plan

Staff Recommendation






Receive and file

Current U.S. Drought Monitor Conditions for California

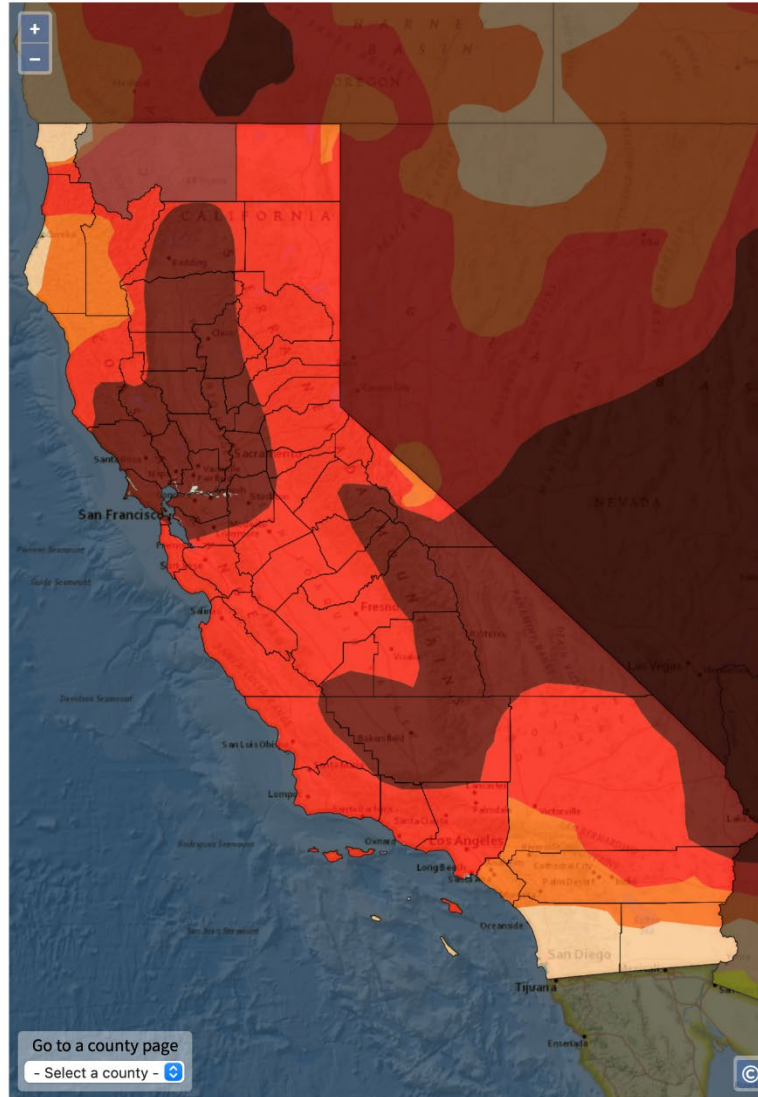
[Current](#) [Last Week](#) [Last Month](#)

The U.S. Drought Monitor(USDM) is updated each Thursday to show the location and intensity of drought across the country. This map shows drought conditions across California using a five-category system, from Abnormally Dry (D0) conditions to Exceptional Drought (D4). The USDM is a joint effort of the National Drought Mitigation Center, USDA, and NOAA. [Learn more.](#)

The following state-specific drought impacts were compiled by the [National Drought Mitigation Center](#). While these impacts are not exhaustive, they can help provide a clearer picture of drought in California.

	D0 - Abnormally Dry <ul style="list-style-type: none">Soil is dry; irrigation delivery begins earlyDryland crop germination is stuntedActive fire season begins	100.0% of CA (D0-D4)
	D1 - Moderate Drought <ul style="list-style-type: none">Dryland pasture growth is stunted; producers give supplemental feed to cattleLandscaping and gardens need irrigation earlier; wildlife patterns begin to changeStock ponds and creeks are lower than usual	100.0% of CA (D1-D4)
	D2 - Severe Drought <ul style="list-style-type: none">Grazing land is inadequateFire season is longer, with high burn intensity, dry fuels, and large fire spatial extentTrees are stressed; plants increase reproductive mechanisms; wildlife diseases increase	94.7% of CA (D2-D4)
	D3 - Extreme Drought <ul style="list-style-type: none">Livestock need expensive supplemental feed; cattle and horses are sold; little pasture remains; fruit trees bud early; producers begin irrigating in the winterFire season lasts year-round; fires occur in typically wet parts of state; burn bans are implementedWater is inadequate for agriculture, wildlife, and urban needs; reservoirs are extremely low; hydropower is restricted	85.4% of CA (D3-D4)
	D4 - Exceptional Drought <ul style="list-style-type: none">Fields are left fallow; orchards are removed; vegetable yields are low; honey harvest is smallFire season is very costly; number of fires and area burned are extensiveFish rescue and relocation begins; pine beetle infestation occurs; forest mortality is high; wetlands dry up; survival of native plants and animals is low; fewer wildflowers bloom; wildlife death is widespread; algae blooms appear	33.3% of CA (D4)

Source(s): [NDMC](#), [NOAA](#), [USDA](#)



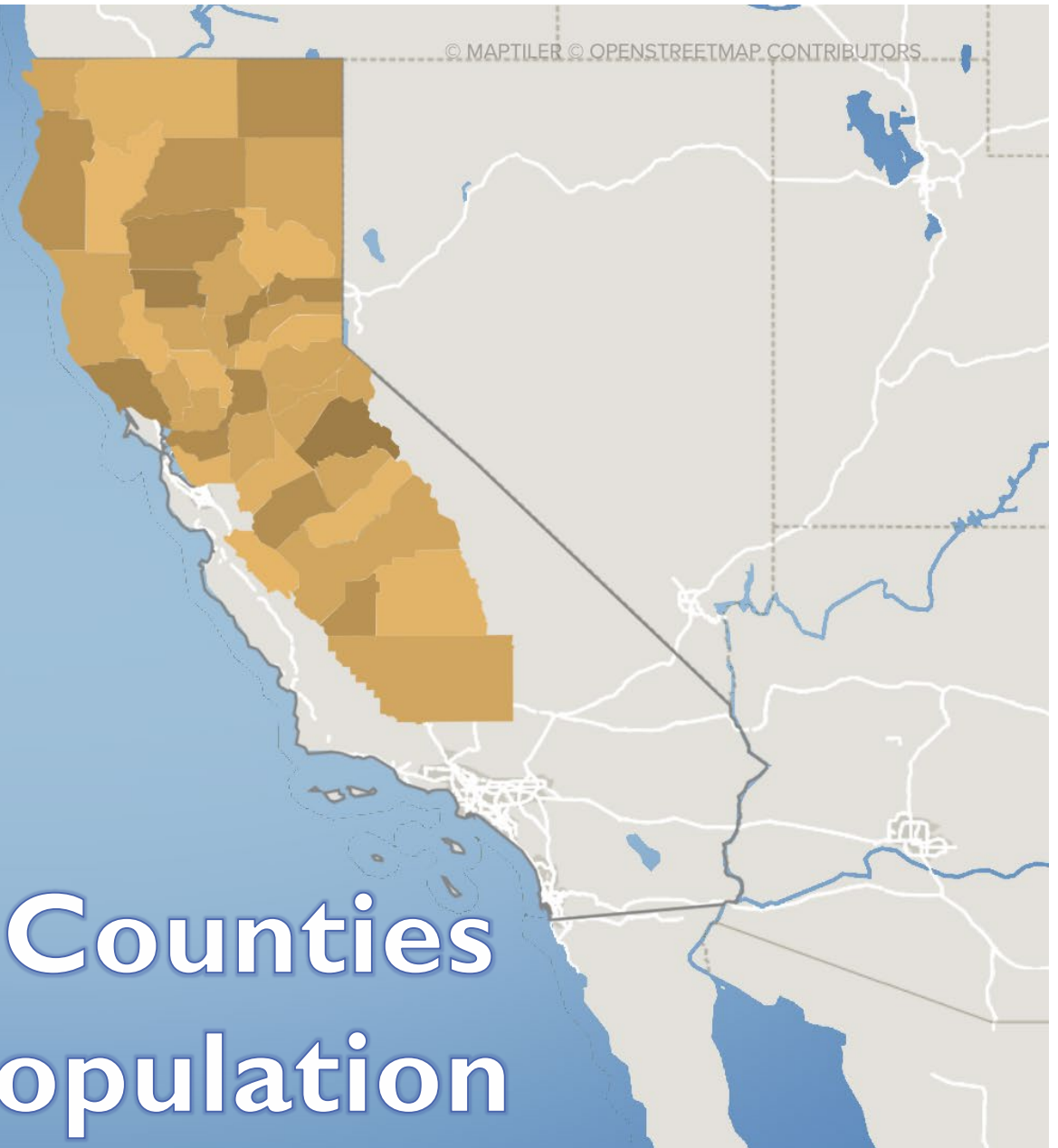
Updates Weekly - 07/06/21

- ❑ 2021 one of the driest on record, driest since 1977
- ❑ Water years 2020 and 2021 are the second driest two-year period behind 1976-77
- ❑ Governor issued an Emergency Proclamation for multiple counties and is asking all Californians to cut water use by 15%

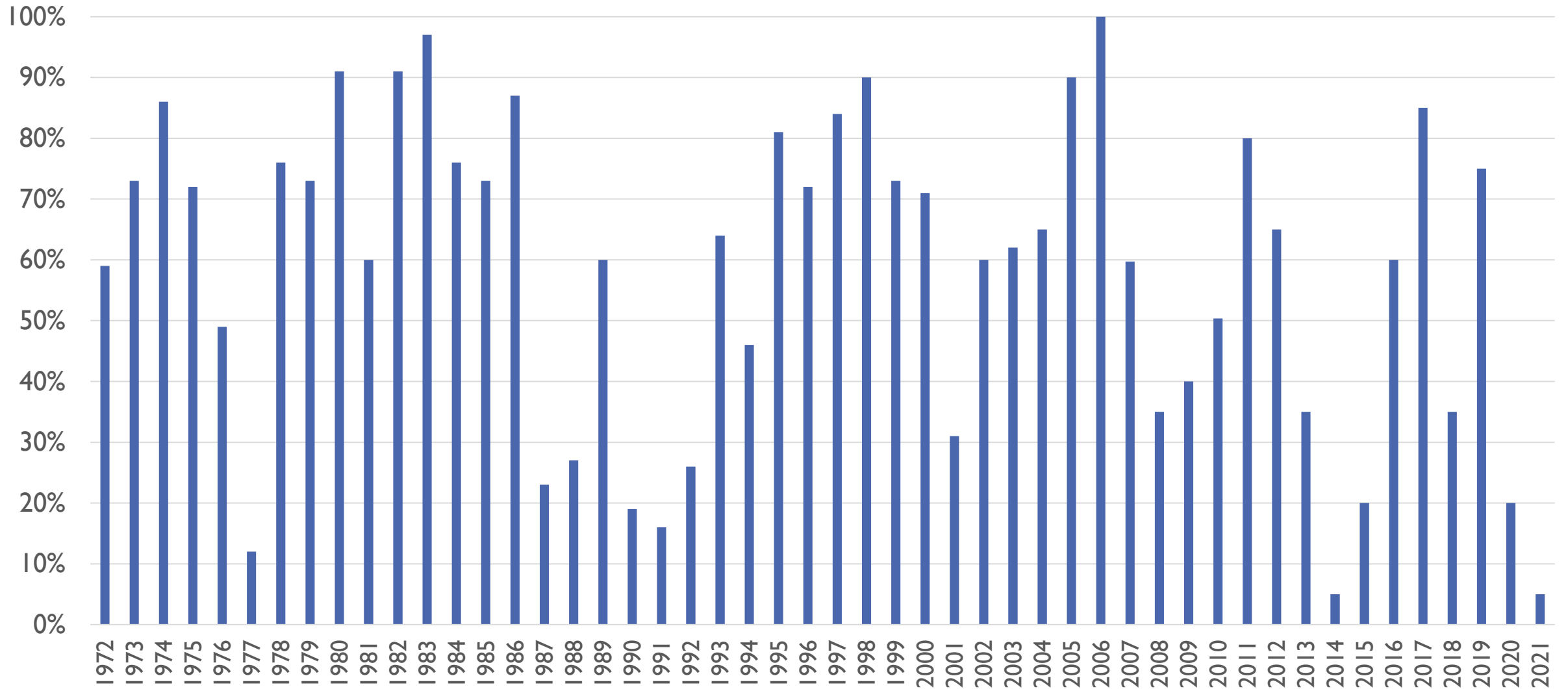
DROUGHT EMERGENCY COUNTIES:

ALAMEDA	LAKE	SHASTA
ALPINE	LASSEN	SIERRA
AMADOR	MADERA	SISKIYOU
BUTTE	MARIPOSA	SONOMA
CALAVERAS	MENDOCINO	SOLANO
COLUSA	MERCED	STANISLAUS
CONTRA COSTA	MODOC	SUTTER
DEL NORTE	NAPA	TEHAMA
EL DORADO	NEVADA	TRINITY
FRESNO	PLACER	TULARE
GLENN	PLUMAS	TUOLUMNE
HUMBOLDT	SACRAMENTO	YOLO
KERN	SAN BENITO	YUBA
KINGS	SAN JOAQUIN	

41 of 58 Counties
30% of population



Historic SWP Table A Allocations

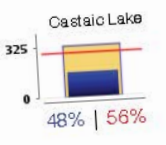
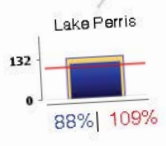
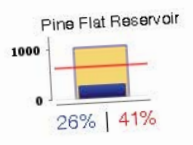
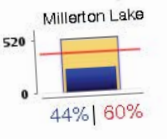
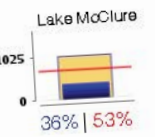
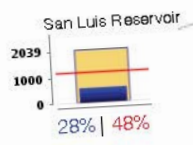
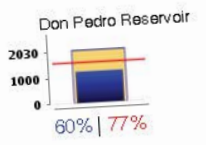
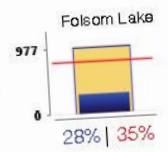
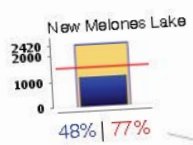
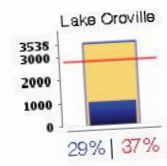
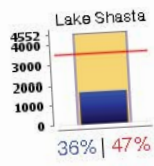
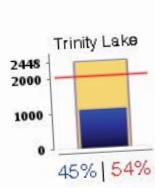
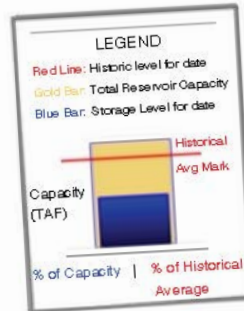




CURRENT RESERVOIR CONDITIONS

Midnight: July 11, 2021

SELECTED WATER SUPPLY RESERVOIRS



Drought Response

Valley District

- Quantify SWP need
- Supplement SWP supply through dry year options
- Reduce SWP demand to meet supply

Drought Response

Valley District

- Quantify SWP need
- Supplement SWP supply through dry year options
- Reduce SWP demand to meet supply

SWP and CVP

- Quantify SWP and CVP need
- Reduce SWP/CVP deliveries and environmental requirements to meet supply
- Exchange water to help environment

SWP and CVP Drought Response

Reduce Deliveries

- Identify lowest service levels
 - Reduce senior water rights
 - Reduce wildlife refuge deliveries
- Request temporary reduction of environmental requirements
- Emergency drought barrier

Change Delivery Schedule

- Lower releases in spring and summer
- Preserve upstream storage for temperature management in late summer and fall
 - Preserve Cold water in Lake Shasta for Salmon

Next Steps

- DWR and the Bureau of Reclamation will continue to:
 - Develop the *Drought Toolkit* which includes anticipated coordination, process, planning and potential responses during a drought which is due in August 2021
 - Provide weekly hydrology and condition updates through the Water Operations Management Team and seek input on how to best manage the limited supplies for the multiple needs
 - Work with others to evaluate the effectiveness of the Drought Plan and accompanying Drought Toolkit and make revisions and enhancements as necessary

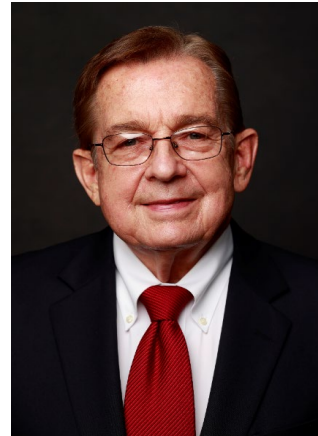
Director Comments and Discussion



Paul Kielhold
President



June Hayes
Vice President



**T. Milford
Harrison**
Treasurer



Gil J. Botello
Director



Susan Longville
Director

Staff Recommendation

Receive and file

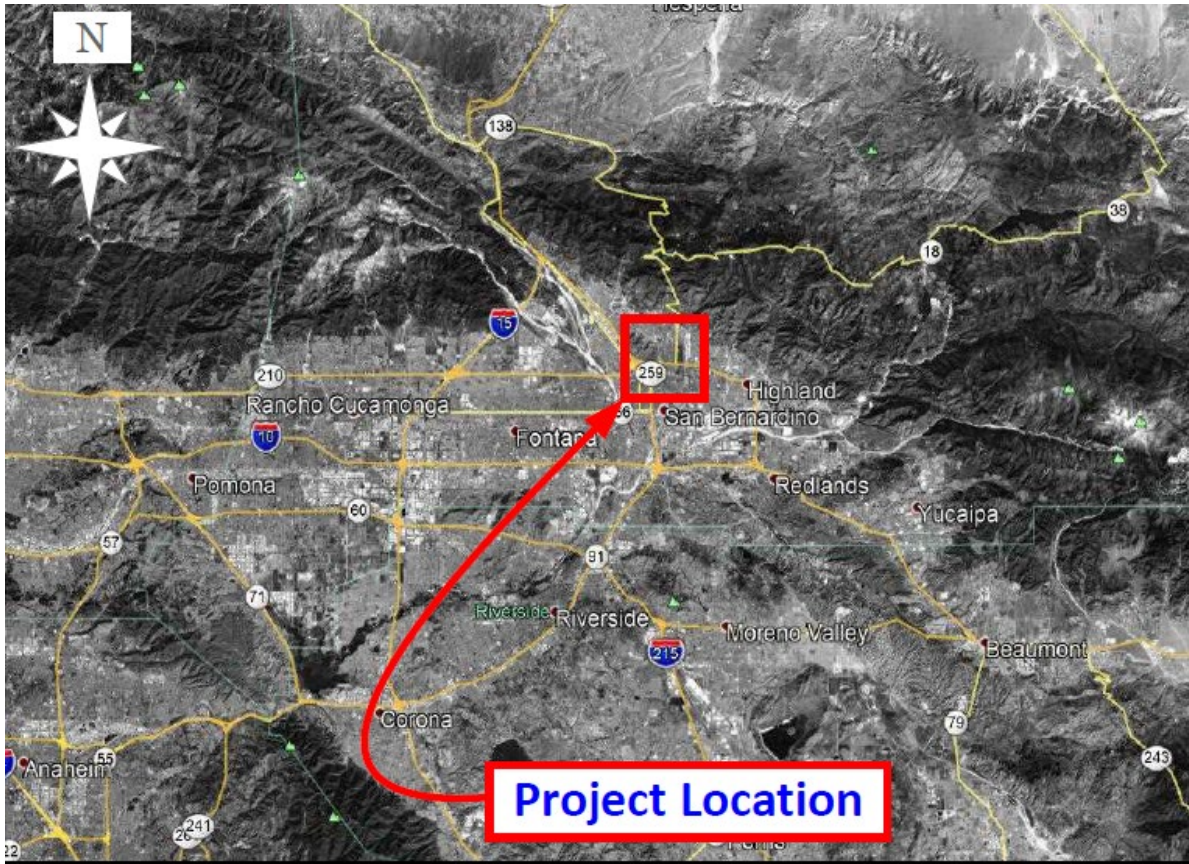
Discussion Item 4.4 (Pg. 73)

Wen B. Huang, PE, MS – Chief Engineer/Deputy General Manager
Aaron Jones, EIT – Associate Engineer

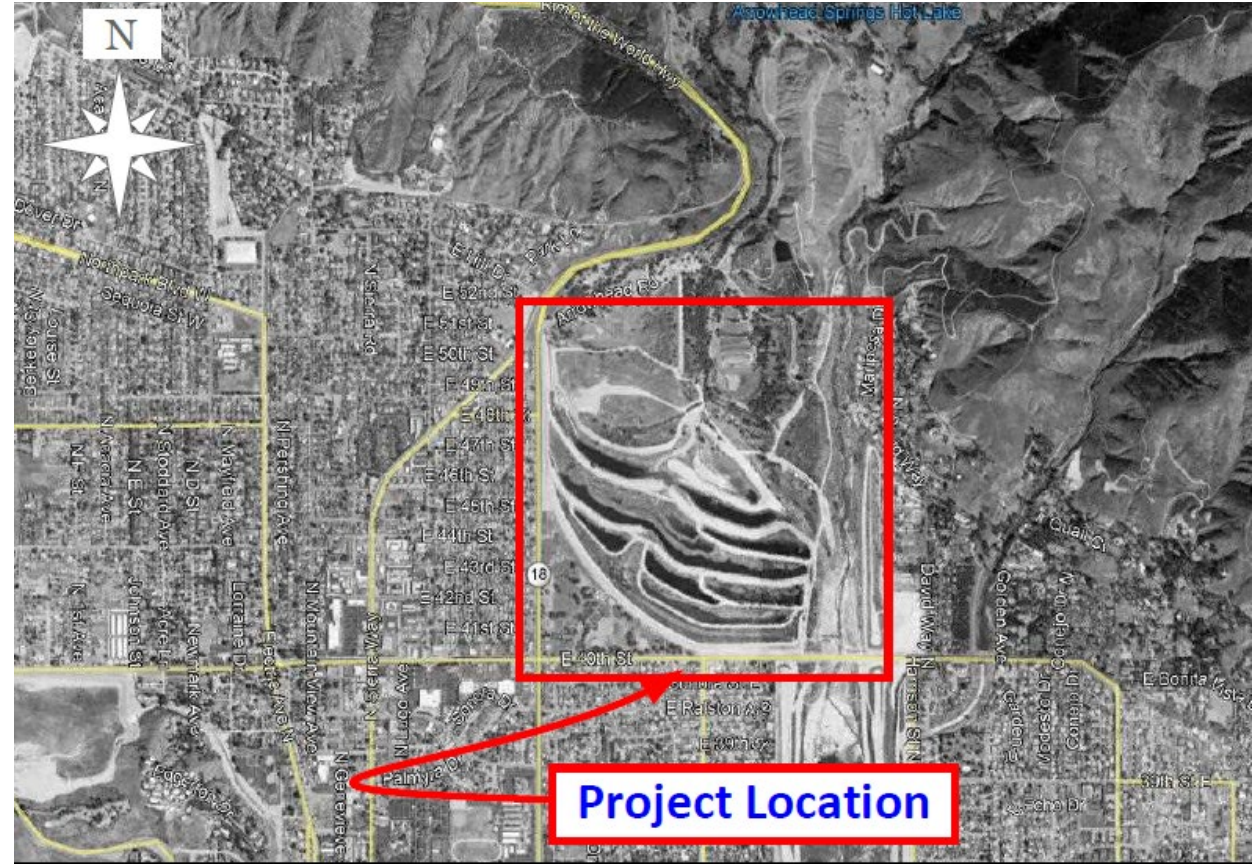
Consider Scope Enhancements to Borden Excavating, Inc.
Construction Contract for the Waterman Hydroelectric
Project (Specification 18-02)

Staff Recommendation

Staff recommends the Board of Directors forward this item to the next Board of Directors' meeting for consideration.



Vicinity Map



Location Map

Background

- Valley District has been recharging water in San Bernardino County Flood Control detention basins, when they are not needed for flood control, since the 1970s.
- The Waterman Basins is an existing Flood Control basin and is a primary State Water Project water recharge area for the San Bernardino Basin Area.
- In order to improve recharge performance of the basins and limit algal growth in the basins, routine maintenance and clearing is necessary.
- On September 29, 2020 Valley District entered into an agreement with Borden Excavating, Inc. for the construction of Waterman Hydroelectric facility for a price of \$2,252,500.

Staff is requesting the Board to consider a scope enhancement to the construction contract with Borden Excavating, Inc. for the Waterman Hydroelectric Project.

- **Scope of Work:** Clean Waterman Basins to improve water recharge. This includes clearing and grubbing the basin floors and side slopes to remove vegetation, and excavating to a depth below the silt and clay clogging layers.
- **Cost:** The total cost for the enhancement will be performed on a time-and-materials basis, not to exceed \$400,000.
- **Schedule:** Due to seasonal constraints, the work may only be performed after the end of the bird nesting season (usually in August or early September) but before the beginning of the rain reason (October).
- **Permits:** This basin cleaning work will be done in compliance with existing five-year permits received from the California Department of Fish and Wildlife and U.S. Army Corps of Engineers. Construction permit from FCD, too.
- **Benefits:** Reduced mobilization costs and meet scheduling constraints.



Director Comments and Discussion



Paul Kielhold
President



June Hayes
Vice President



**T. Milford
Harrison**
Treasurer



Gil J. Botello
Director



Susan Longville
Director

Staff Recommendation

Staff recommends the Board of Directors forward this item to the next Board of Directors' meeting for consideration.

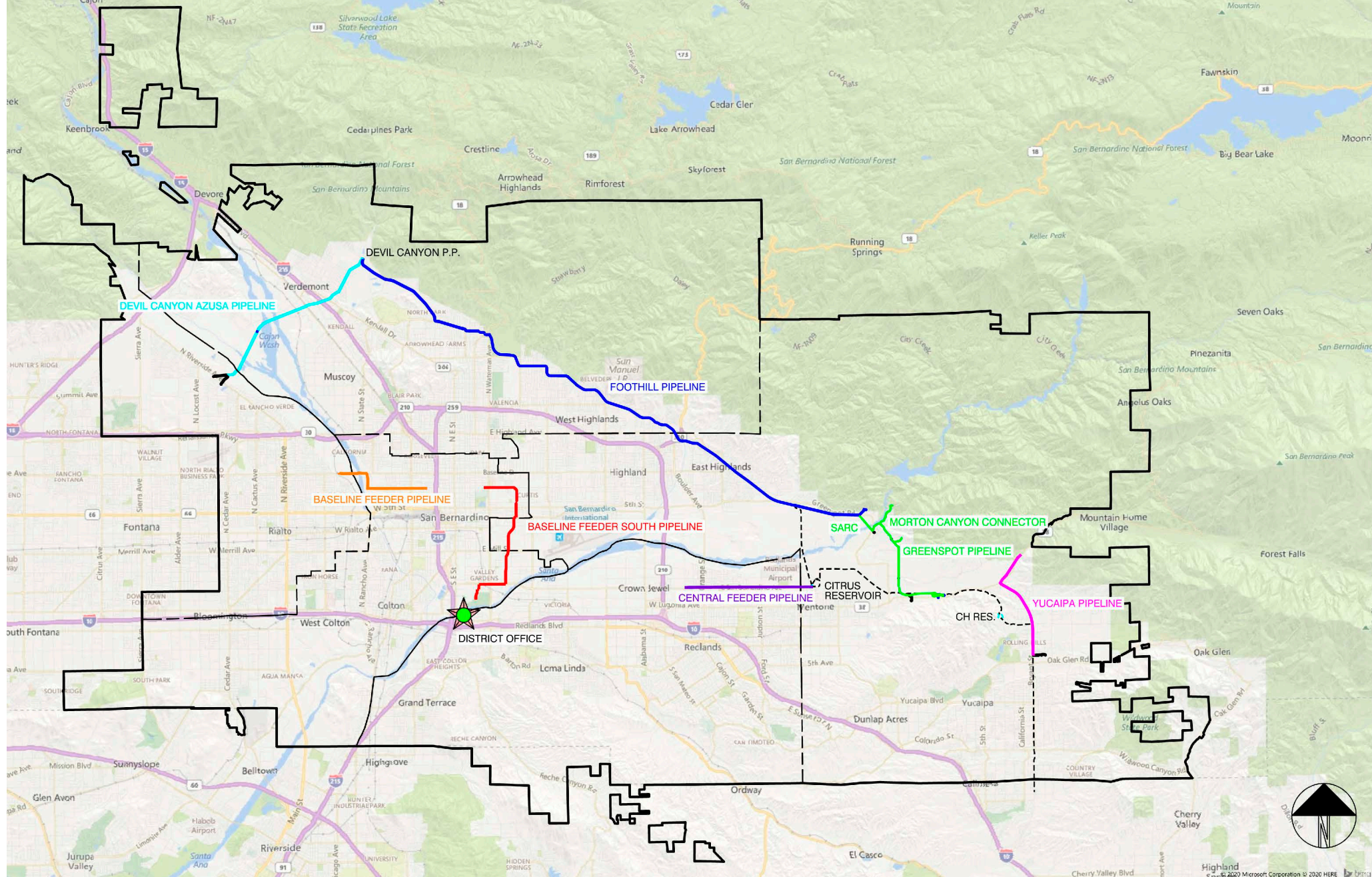
Discussion Item 4.5 (Pg. 85)

Wen B. Huang, PE, MS – Chief Engineer/Deputy General Manager
Michael R. Esquer – Senior Project Manager

Consider the 2021 Cathodic Testing Survey Program of District's Pipelines

Staff Recommendation

Staff recommends that the 2021 Cathodic Testing Survey Program of the District Pipelines with an estimated cost of \$37,257 be forwarded to the next Board of Directors' Meeting for consideration.



Director Comments and Discussion



Paul Kielhold
President



June Hayes
Vice President



**T. Milford
Harrison**
Treasurer



Gil J. Botello
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Susan Longville
Director

Staff Recommendation

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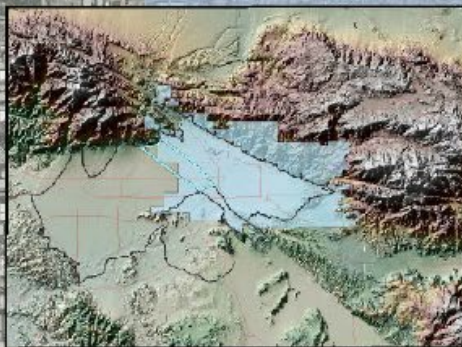
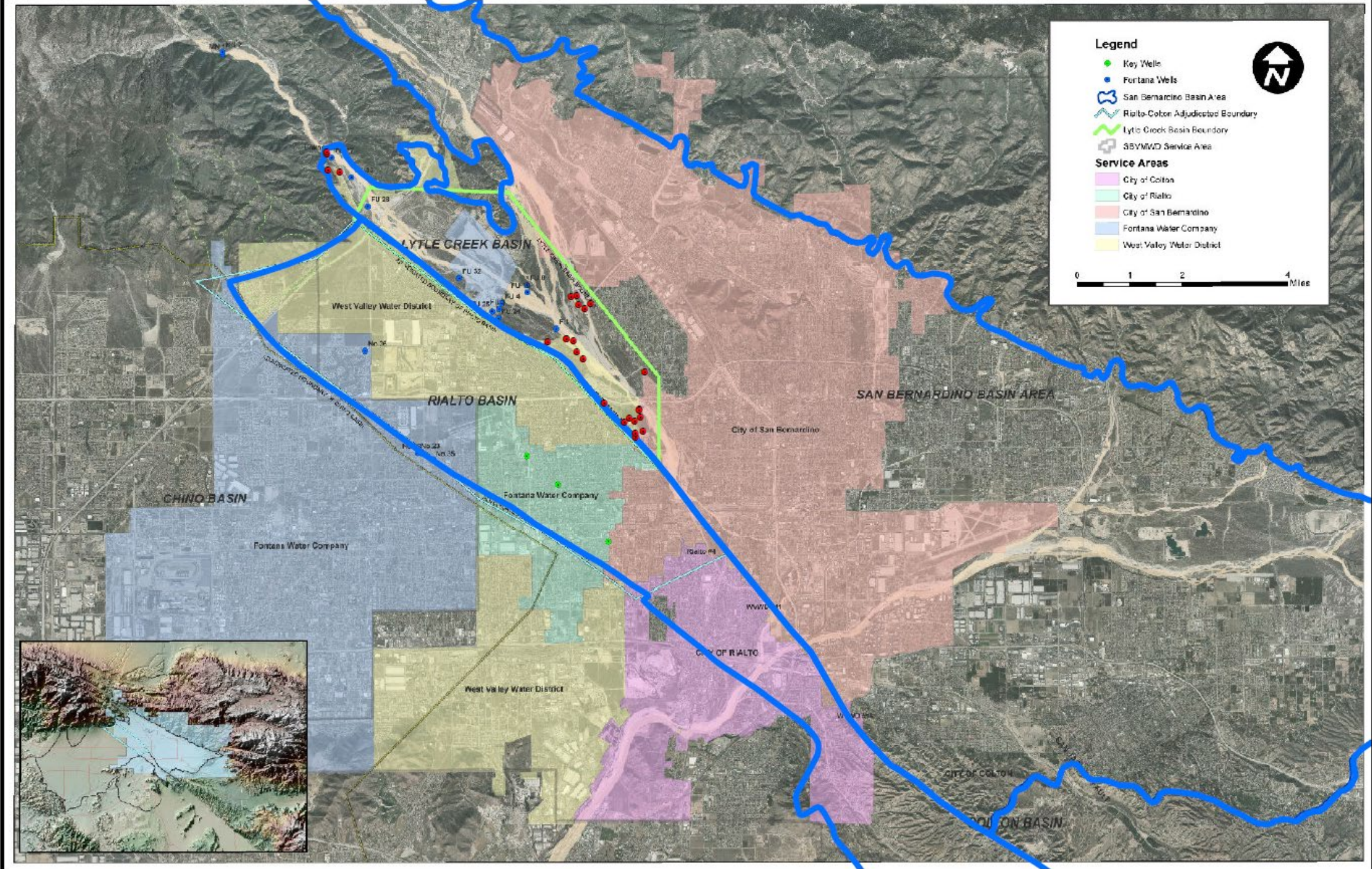
Discussion Item 4.6 (Pg. 87)

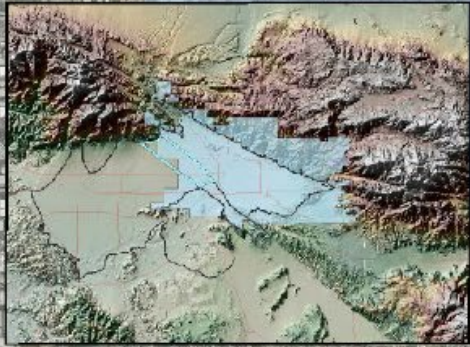
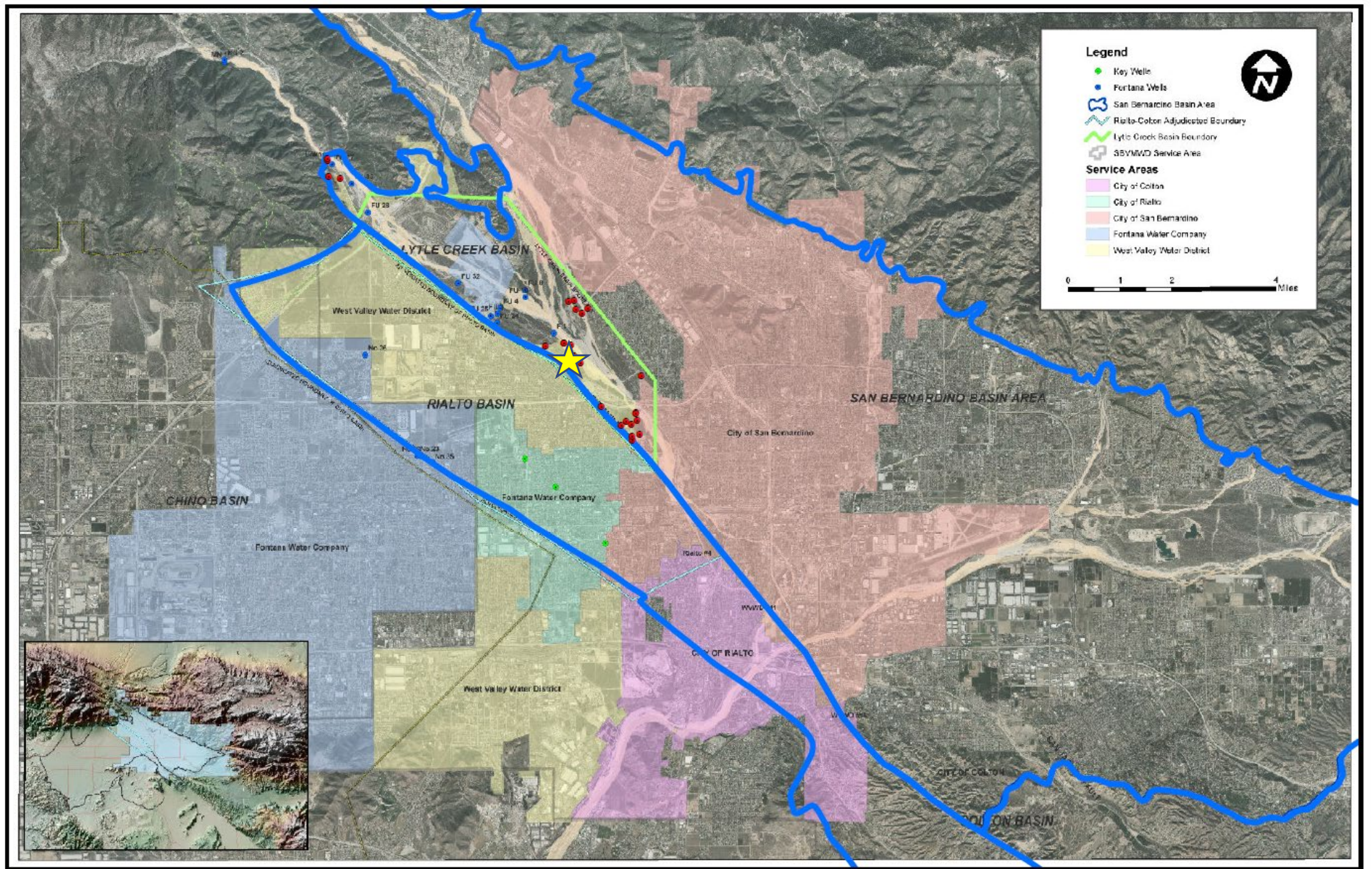
Wen B. Huang, PE, MS – Chief Engineer/Deputy General Manager
Michael R. Esquer – Senior Project Manager

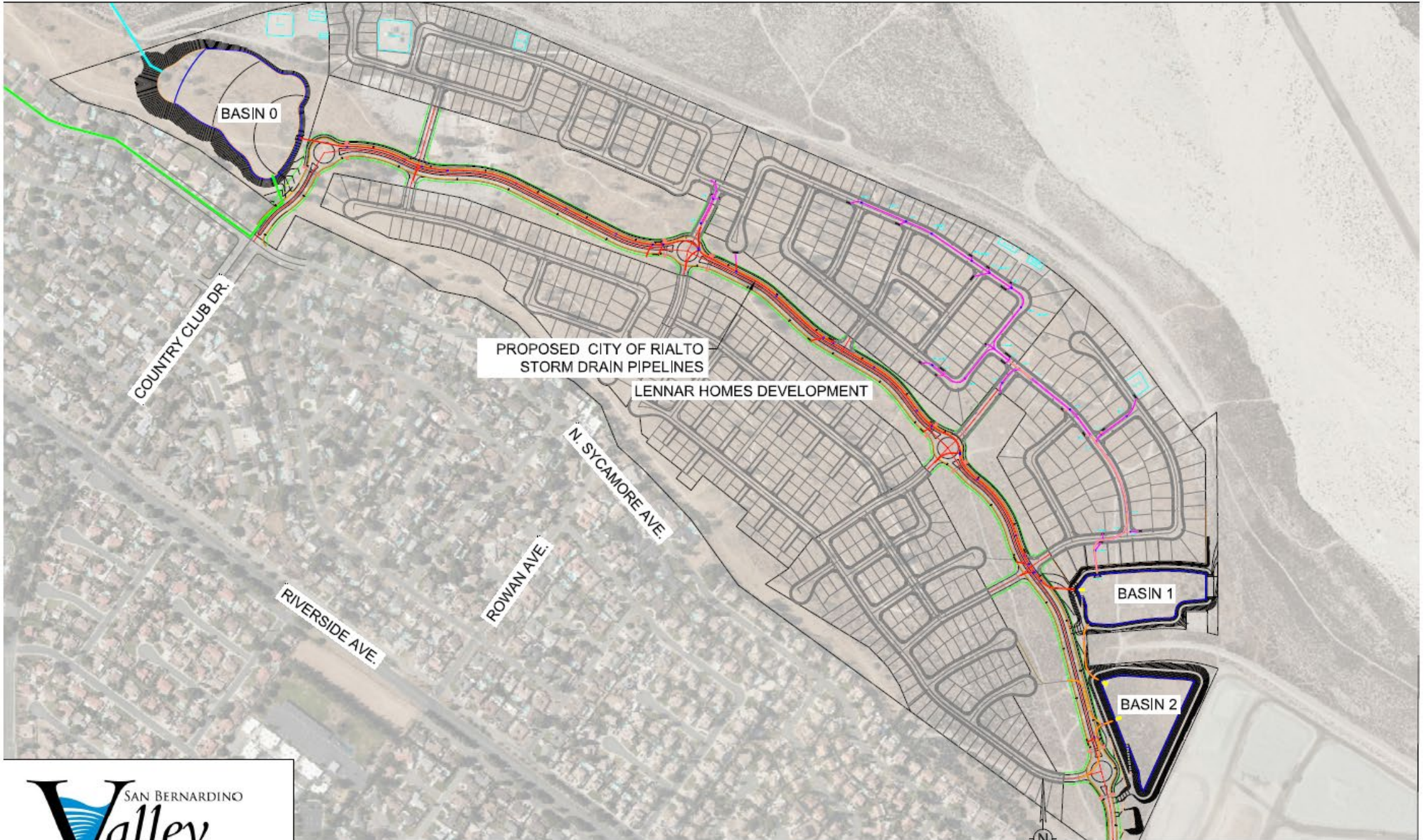
Consider Partnership with Lennar Homes for Development of Stormwater Detention Basins for Groundwater Recharge in the Lytle Creek Region

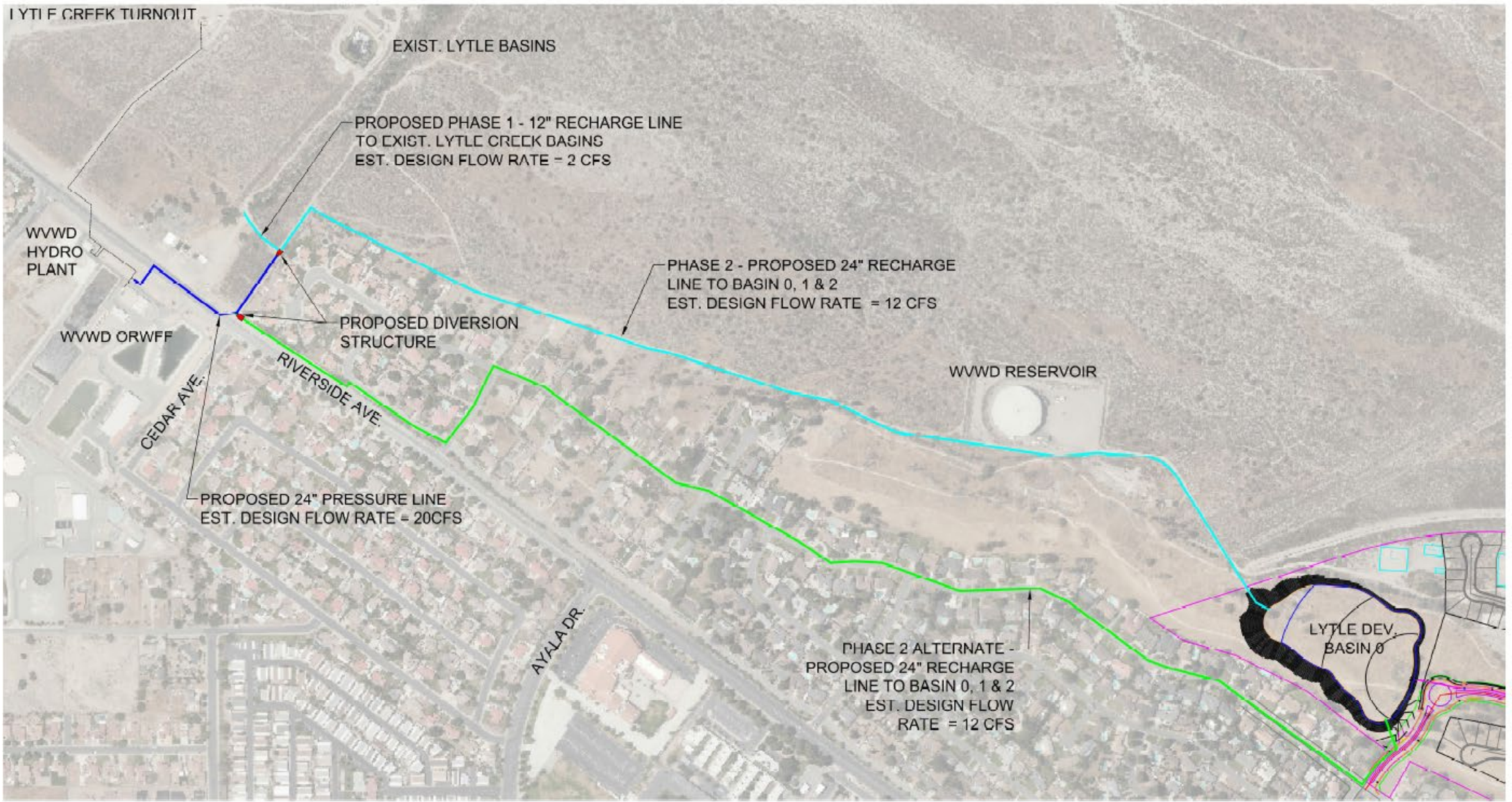
Staff Recommendation

Direct staff to continue working with Lennar Homes and WVWD and the City of Rialto to develop an agreement for the arrangement of these basins for consideration by the Board of Directors in the near future.









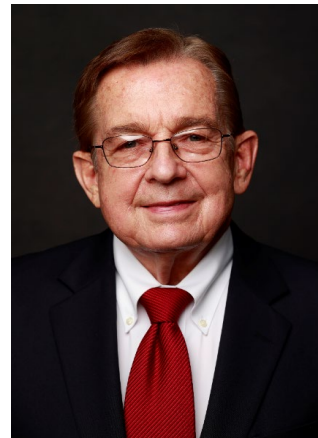
Director Comments and Discussion



Paul Kielhold
President



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**T. Milford
Harrison**
Treasurer



Gil J. Botello
Director



Susan Longville
Director

Staff Recommendation

Direct staff to continue working with Lennar Homes and WVWD and the City of Rialto to develop an agreement for the arrangement of these basins for consideration by the Board of Directors in the near future.

Future Business



Adjournment
