

2020 OBMP Update

LISTENING SESSION 5

JULY 31, 2019





Process to date

- Parties have participated in 4 listening sessions
- Drivers, Trends, and Implications that create the need for an update of the 2000 OBMP were identified
- The parties expressed their Issues, Needs, and Wants
- Re-evaluated the 2000 OBMP Goals and concluded that the 2020 OBMP Goals remain the same
- Stakeholders proposed activities to achieve the goals
- Reviewed the first part of Technical Memo #1 - *2020 OBMP Update: Scoping Report - Development of Activities for Consideration* (Scoping Report) that describes the scope, timeline and cost estimates for the first four of the eight proposed activities



Impediments	Activities to Remove Impediments	Potential Outcomes of Activities	Issues, Needs and Wants, as Categorized by Basin Management Issues, that are Addressed by Activities								
			Reductions in Chino Basin Safe Yield	Inability to Pump Groundwater with Existing Infrastructure	Increased Cost of Groundwater Use	Chino Basin Water Quality Degradation	Recycled Water Quality Degradation	Increased Cost of Basin Plan Compliance	Reduced Recycled Water Availability and Increased Cost	Reduced Imported Water Availability and Increased Cost	
Goal 1 - Enhance Basin Water Supplies											
<p>1b</p> <ul style="list-style-type: none"> • There is a surplus of recycled water potentially available to the Chino Basin parties that is not being put to beneficial use. • Existing infrastructure limits the expansion or reuse and recharge of recycled water in the Chino Basin. • Existing requirements to discharge recycled water to the Santa Ana River limit the amount of IEUA recycled water available for reuse and recharge • The Department of Drinking Water and the Regional Board blending requirements for recycled water recharge could limit expanded recharge opportunities 	<p>D</p> <p>Maximize the reuse of recycled water produced by IEUA and others</p>	<ul style="list-style-type: none"> • Results in a new, consistent volume of in-lieu and/or wet water recharge that will: <ul style="list-style-type: none"> • protect/enhance the safe yield, • reduce dependence on imported water, • improve water-supply reliability, especially during dry periods, and • increase pumping capacity in areas of low groundwater levels and areas of subsidence concern. • Identify additional sources of water to satisfy IEUA discharge requirements pursuant to the Santa Ana River Judgment. 		✓	✓					✓	✓



Moving forward...

- Analyze and decide which new activities to include in the 2020 OBMP and Implementation Plan along with the activities from the 2000 OBMP that will be included in the update for continuous implementation
- We are all in this together
- Your participation is fundamental for the successful and timely completion of the 2020 OBMP
- As a matter of course:
 - Silence is interpreted as agreement
 - If you disagree with something, propose an alternative



2020 OBMP Update Scoping Report Overview

2020 OBMP Update: Scoping Report - Development of Activities for Consideration

1. Introduction and Background

2. Development of Activities for Consideration in the 2020 OBMP Update

3. Scope of Work to Perform Proposed 2020 OBMP Update Activities

Appendices – Listening Session Memos: LS1, LS2, LS3



2020 OBMP Update Scoping Report – Part 1

Section 3 - Description of OBMP Update Activities

- Description of activity
- Nexus of activity to the 2000 OBMP (if any)
- Need and function of activity
- Scope of work
- Cooperative efforts with appropriate entities to implement activity
- Implementation actions, schedule, and cost



2020 OBMP Update

Scoping Report – Part 1

Activity A - Construct new facilities and improve existing facilities to increase the capacity to store and recharge storm and supplemental water...

Activity B - Develop, implement, and optimize storage-and-recovery programs...

Activity D - Maximize the reuse of recycled water produced by IEUA and others

Activity E/F - Develop and implement a water-quality management plan...



2020 OBMP Update

Scoping Report – Assumptions

Basis for scope of work and cost

- Based on the current understanding of the stakeholders' desired outcomes as articulated during the 2020 OBMP Update listening sessions

Estimated costs of engineering services

- Based on 2019 WEI rates

Participating agency costs are not included

- Staff labor costs and other direct costs incurred by agencies participating in the activities are not included

Stand-alone costs



2020 OBMP Update

Scoping Report – Assumptions

Existing OBMP activities

- Ongoing activities of the 2000 OBMP and the 2007 supplement to the OBMP IP will continue unless otherwise specified

Leveraging existing work

- Scopes leverage existing work being performed by Watermaster

Schedule

- All activities begin in FY 2020/21



Activity A

Construct new facilities and improve existing facilities to increase the capacity to store and recharge storm and supplemental water, particularly in areas of the basin that will promote the long-term balance of recharge and discharge



Potential Outcomes of Activity A

Increases recharge of high-quality stormwater that will:

- protect/enhance the Safe Yield
- improve water quality
- reduce dependence on imported water
- increase pumping capacity in areas of low groundwater levels and areas of subsidence concern
- provide new supply of blending water to support the recycled-water recharge program.

Provide additional supplemental-water recharge capacity for replenishment and the implementation of storage and recovery programs

Provide additional surface water storage capacity



Nexus to 2000 OBMP

Activity A has similar objectives to those of PE 2 – *Develop and Implement Comprehensive Recharge Program*

- Ensure there is enough recharge capacity and supplemental water available to meet future replenishment requirements
- Maximize the recharge of recycled and storm waters where feasible
- Balance the recharge and discharge in every area and subarea

The implementation plan for PE2, as defined in the Peace Agreement, requires the preparation of a recharge master plan update (RMPU) at least every five years

Activity A can be accomplished through the existing RMPU process



Need and Function

- There is ~60,000 afy of lost opportunity for stormwater recharge.
 - Improvements to existing facilities and/or new facilities are required to achieve the stormwater recharge potential
- Based on Watermaster and the IEUA's historical selection process, no known future recharge project was recommended for implementation in the 2018 RMPU
- The criteria on how and where to conduct recharge needs to be updated to more efficiently address the existing basin management issues



Roles and Responsibilities

The roles and responsibilities are the same as existing RMPU process.

- **Watermaster** → Leads stakeholder process to define objectives and develop criteria and estimates recharge benefit of the projects.
- **IEUA** → Leads development of projects for evaluation and cost opinions.
- **CBWCD and SBCFCD** → Collaborate with Watermaster and review/permit engineering designs for their facilities.



Scope of Work for Activity A

Task 1 – Define objectives and refine scope of work

Task 2 – Develop planning, screening, and evaluation criteria

Task 3 – Describe recharge enhancement opportunities

Task 4 – Develop reconnaissance-level engineering design and operating plan

Task 5 – Plan, design, and construct selected recharge projects



Scope of Work for Activity A

Task and Subtask Description	Engineering Cost	FY 2020/21				FY 2021/22				FY 2022/23				FY 2023/24 and beyond
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Task 1 Define objectives and refine scope <ul style="list-style-type: none"> Define objectives of Activity A Refine scope described in TM1 Prepared detailed scope and cost 	\$45,000	\$45,000												
Task 2 Develop planning, screening, and evaluation criteria <ul style="list-style-type: none"> Develop criteria on how and where to conduct recharge Develop criteria to evaluate project cost and benefit Review and finalize criteria 	\$125,000		\$125,000											
Task 3 Describe recharge enhancement opportunities <ul style="list-style-type: none"> Identify potential stormwater recharge projects Select projects for reconnaissance level recharge study 	\$80,000					\$80,000								



Scope of Work for Activity A

Task and Subtask Description	Engineering Cost	FY 2020/21				FY 2021/22				FY 2022/23				FY 2023/24 and beyond
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Task 4 Develop reconnaissance-level engineering design and operating plan <ul style="list-style-type: none"> · Characterize potential recharge alternatives · Rank Alternatives · Prepare finance plan for soft-costs · Prepare report 	\$325,000						\$220,000			\$105,000				
Task 5 Plan, Design, Construct <ul style="list-style-type: none"> · Prepare preliminary design report and CEQA documentation · Prepare finance plan for project implementation · Obtain permits and agreements and prepare final design · Construct selected projects 	\$ TBD													\$ TBD
Total Cost and Cost by FY	\$575,000	\$170,000				\$300,000				\$105,000				\$ TBD



Activity B

Develop, implement, and optimize storage-and-recovery (S&R) programs to increase water-supply reliability, protect or enhance safe yield, and improve water quality



Potential Outcomes of Activity B

S&R programs that are optimized to:

- protect or enhance safe yield
- improve water quality
- ensure balance of recharge and discharge
- maintain hydraulic control

Leverage unused storage space in the basin

Reduce reliance on imported water, especially during dry periods

Potentially provide opportunity for outside funding sources to implement the OBMP Update



Nexus to 2000 OBMP

Activity B has similar objectives to those of PE 9 of the 2000 OBMP—*Develop and Implement Storage and Recovery Programs*

- benefit all parties
- ensure maximum beneficial use of groundwater and basin storage capacity
- cause no material physical injury (MPI)

Pursuant to the OBMP IP, Watermaster shall:

- regulate and condition S&R programs for mutual benefit of the parties
- give first priority to S&R programs that provide broad mutual benefits to the parties



Nexus to 2000 OBMP

The OBMP IP included a storage management plan that allowed the parties to utilize a 500,000 af band of basin storage space and requires them to mitigate adverse impacts from its use

In 2017, the IEUA adopted an addendum to the 2010 Peace II SEIR that provided a temporary increase in the useable storage space to 600,000 af through June 30, 2021

In 2018, Watermaster conducted a *Storage Framework Investigation* where future projections of the use of storage were estimated and evaluated for potential MPI

The 2020 Storage Management Plan, when completed, will inform the development of future S&R programs



Need and Function

Past efforts to develop and implement S&R programs:

- Understanding that Chino Basin storage is a valuable resource that can and should be leveraged to benefit the parties
- Missing an initial effort to clearly articulate the objectives of the parties and the required benefits to be realized from S&R programs



Need and Function

Need → a more deliberate planning process that answers the following questions:

1. Why do the parties want to conduct storage and recovery programs? And, what are the parties' objectives for storage and recovery programs?
2. What were the obstacles to implementing storage and recovery programs in the past? How do we avoid or overcome them in the future?
3. What are the benefits desired by the parties? How can such benefits be quantified?
4. What are the potential source waters for storage and recovery programs in the Chino Basin? What is the availability and what are the volumes of these potential source waters?
5. Who are the entities that would be interested in obtaining water from a storage and recovery program? How would they take delivery of the stored water?



Need and Function

6. How could put and take operations be performed to match the availability of the source waters with the demand for the stored water and be consistent with the 2020 Storage Management Plan?
7. How can existing infrastructure be used to perform put and take operations? Are new facilities required? What are the capital and O&M costs associated with the use of existing and new facilities?
8. What are the practical alternatives for implementing storage and recovery programs?
9. What institutional arrangements are necessary to implement storage and recovery programs?



Scope of Work for Activity B

Task 1 – Convene the S&R Program Committee and articulate objectives and desired benefits

Task 2 – Develop conceptual alternatives for S&R programs at various scales

Task 3 – Describe and evaluate reconnaissance-level facility plans and costs for S&R program alternatives

Task 4 – Prepare ***Storage and Recovery Program Master Plan***



Roles and Responsibilities

Committee Members

- Judgment Parties
- IEUA
- TVMWD
- WMWD

Watermaster

- Coordinates and administers the Committee
- Ensures Committee recommendations are consistent with Judgment, Peace Agreements and other agreements, the 2020 Storage Management Plan, and the Watermaster R&Rs

Storing Partners

- Consulted, but do not participate on Committee



Objectives of the S&R Master Plan

Enable the parties and other potential storing partners to:

1. Reference a common set of objectives and align the objectives with requirements for grants and other funding opportunities
2. Assess the potential for implementing S&R programs at various scales
3. Solicit interest in participation in S&R programs
4. Develop S&R programs that are consistent with the 2020 Storage Management Plan



Scope of Work for Activity B

Task and Subtask Description	Engineering Cost	FY 2020/21				FY 2021/22				FY 2022/23				FY 2023/24 and beyond
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Task 1 Convene the Storage and Recovery Program Committee, define objectives, and refine scope of work <ul style="list-style-type: none"> · Convene Storage and Recovery Program Committee · Define objectives and impediments for developing storage and recovery programs · Define mutual benefits expected from storage and recovery programs · Develop scope, schedule, and cost to prepare a <i>Storage and Recovery Program Master Plan</i> 	\$105,000	\$105,000												
Task 2 Develop conceptual alternatives for storage and recovery programs at various scales <ul style="list-style-type: none"> · Identify and characterize potential source waters · Identify potential storing partners and delivery methods · Identify and characterize institutional challenges · Develop planning criteria · Describe several conceptual storage and recovery programs alternatives · Evaluate and select alternatives for Task 3 	\$ TBD					\$ TBD								



Scope of Work for Activity B

Task and Subtask Description	Engineering Cost	FY 2020/21				FY 2021/22				FY 2022/23				FY 2023/24 and beyond
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Task 3 Describe and evaluate reconnaissance-level facility plans and costs for storage and recovery program alternatives <ul style="list-style-type: none"> · Describe alternative facility plans, operations, and costs · Characterize basin response, potential MPI, benefits · Describe potential implementation barriers · Assess feasibility and rank alternatives 	\$ TBD									\$ TBD				
Task 4 Prepare <i>Storage and Recovery Program Master Plan</i> <ul style="list-style-type: none"> · Describe results and recommendations of Tasks 1 through 3 · Achieve consensus on the recommendations · Prepare <i>Storage and Recovery Program Master Plan</i> 	\$ TBD												\$ TBD	\$ TBD
Total Cost and Cost by FY	\$105,000	\$105,000				\$0				\$0				\$ TBD



Activity D

Maximize the reuse of recycled water produced by IEUA and others



Potential Outcomes of Activity D

Provide a new, reliable volume of in-lieu and/or wet water recharge that could:

- Protect or enhance safe yield
- reduce dependence on imported water
- improve water-supply reliability, especially during dry periods
- increase pumping capacity in areas of low groundwater levels and areas of subsidence concern

Provide for alternative sources of recycled water that can be used to satisfy the IEUA's requirement to discharge a minimum of 17,000 afy to the Santa Ana River pursuant to the Santa Ana River Judgment and associated agreements with the WMWD



Nexus to 2000 OBMP

Activity D has similar objectives to those of PE 5 of the 2000 OBMP—*Develop and Implement Regional Supplemental Water Program*

- To improve regional conveyance and availability of imported and recycled waters throughout the basin

The implementation plan for PE3/PE5, was for the IEUA to construct recycled water facilities to meet recycled water demands for direct use and for groundwater recharge

The aggressive expansion of the recycled water reuse program was made possible—and economically feasible—through the SNMP activities performed pursuant to PE 7—*Develop and Implement Salt Management Plan*.



Exhibit D-3 Recycled Water Recharge and Direct Recycled Water Reuse FY 1996/97 to 2017/18

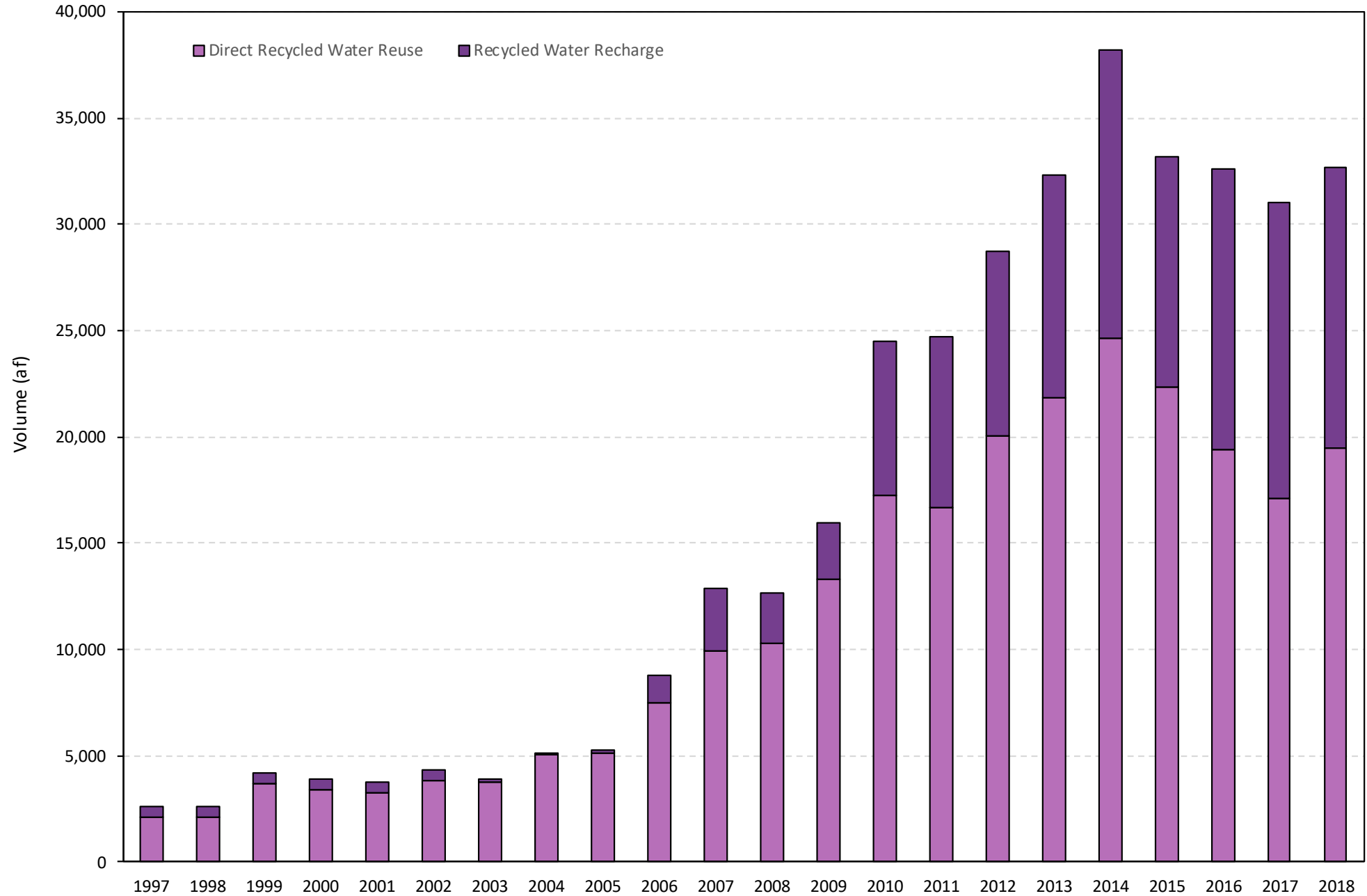




Exhibit D-2 IEUA Recycled Water Discharge to Santa Ana River FY 1977/78 to 2017/18

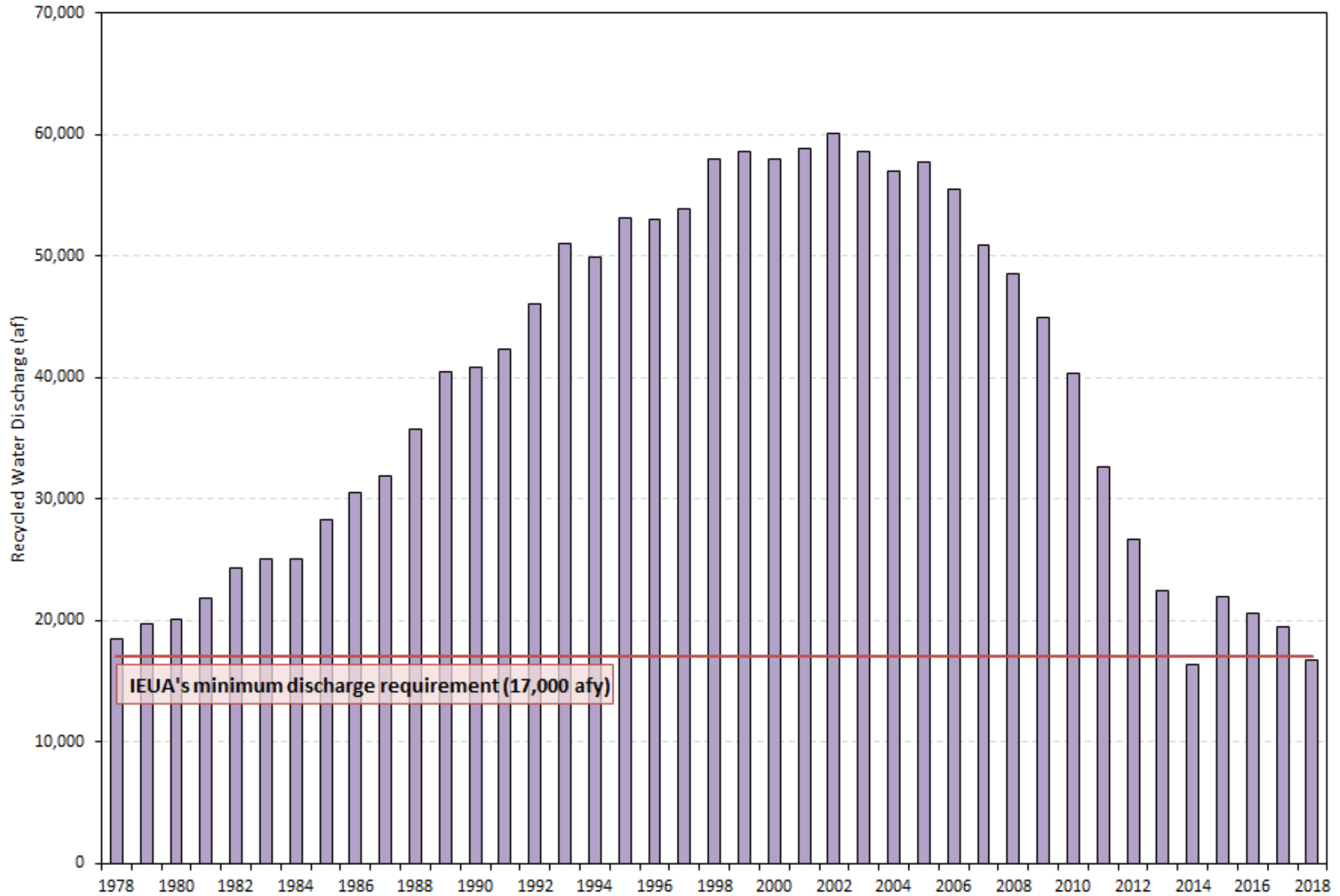
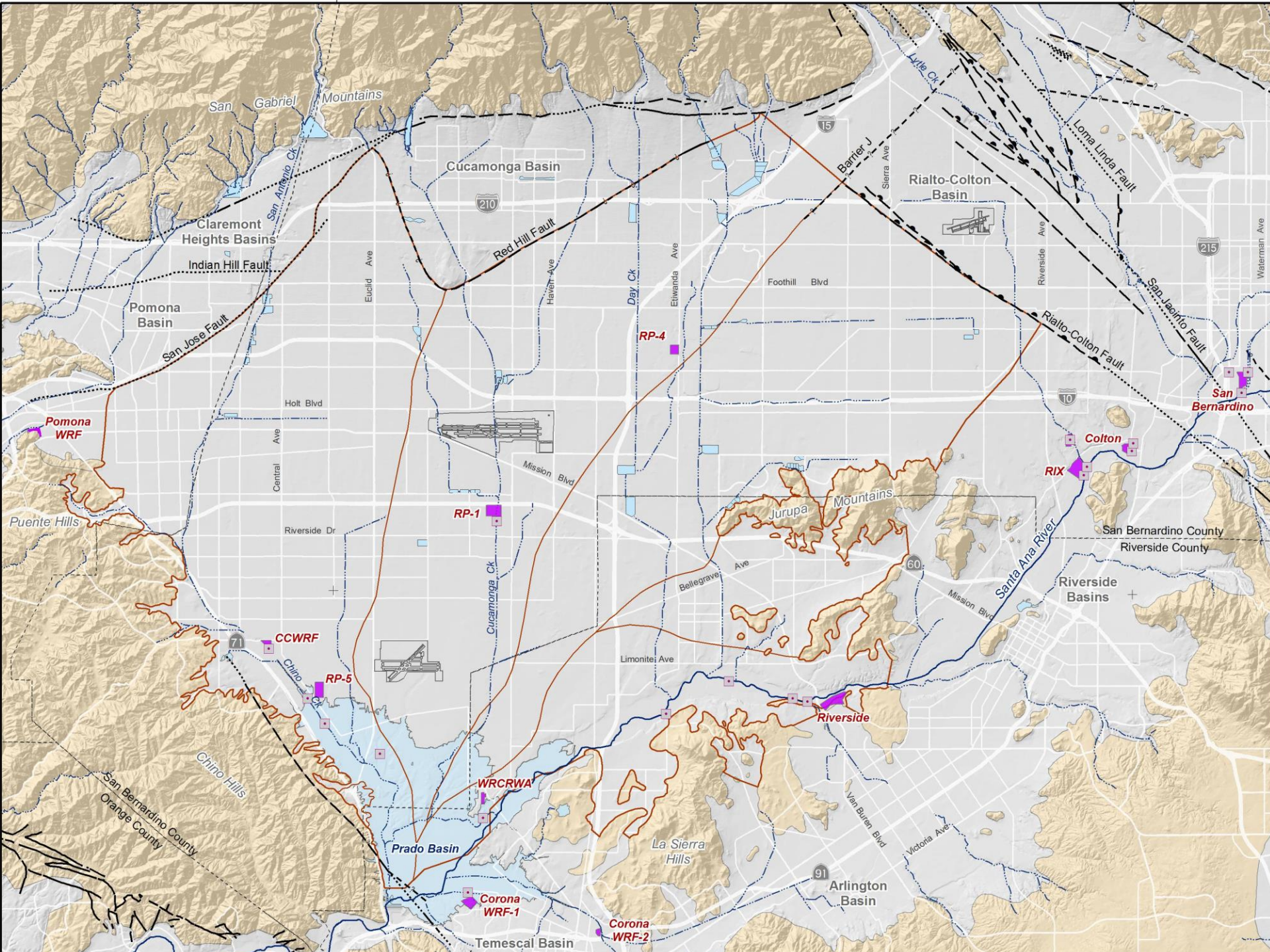














Exhibit D-5

IEUA Projections of Recycled Water Production and Reuse through 2040

Recycled Water (af)		FY 2017/18	2020	2025	2030	2040
Production - High*	a	49,369	64,400	70,400	75,200	83,000
Production - Low*			54,400	61,000	67,700	74,700
Direct Reuse*	b	19,450	24,000	27,500	30,000	30,000
Recharge	c	13,212	16,900	18,700	18,700	18,700
Surplus Supply Available for Reuse and/or Discharge - High	d = a - (b + c)	16,708	23,500	24,200	26,500	34,300
Surplus Supply Available for Reuse and/or Discharge - Low			0	13,500	14,800	19,000

* Source: Inland Empire Utilities Agency. *Sources of Water Supply for the Chino Basin Program*. Memo to Member Agencies. February 20, 2019.



-  Recycled Water Treatment Plant
-  Recycled Water Discharge Point
-  OBMP Management Zones
-  Streams & Flood Control Channels
-  Flood Control & Conservation Basins
- Faults**
 -  Location Certain
 -  Location Approximate
 -  Location Concealed
 -  Location Uncertain
 -  Approximate Location of Groundwater Barrier
- Geology**
 - Water-Bearing Sediments**
 -  Quaternary Alluvium
 - Consolidated Bedrock**
 -  Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks

34°00'N





Considerations and Challenges

existing planning efforts: CBP

Santa Ana River Judgment

timing of recycled water availability

SNMP requirements

water quality – PFAS

direct potable reuse (DPR)



Roles and Responsibilities

Committee Members

- Comprised of representatives from all interested stakeholders
- Evaluates project opportunities and develops a plan to implement them

Watermaster

- Coordinates and administers the Committee
- Ensures Committee recommendations are consistent with Watermaster's governing documents

IEUA

- Identifies additional recycled water supplies and conduct discussions with the owners of those supplies
- Contracts for planning and engineering services, as required
- Coordinates with Watermaster and the parties



Scope of Work for Activity D

Task 1 – Convene Recycled Water Projects Committee, define objectives and refine scope of work

Task 2 – Characterize the availability of all recycled water supplies and demands

Task 3 – Develop planning, screening, and evaluation criteria

Task 4 – Describe recycled water reuse project opportunities

Task 5 – Develop reconnaissance-level engineering design and operating plan

Task 6 – Plan, design, and construct selected recycled water projects



Scope of Work for Activity D

Task and Subtask Description	Engineering Cost	FY 2020/21				FY 2021/22				FY 2022/23				FY 2023/24 and beyond
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Task 5 Develop reconnaissance-level engineering design and operating plan <ul style="list-style-type: none"> · Characterize potential project alternatives · Rank alternatives · Prepare finance plan for soft-costs · Prepare report 	\$310,000						\$130,000			\$180,000				
Task 6 Plan, design, and construct selected recycled water projects <ul style="list-style-type: none"> · Prepare preliminary design report and CEQA documentation · Prepare finance plan for project implementation · Obtain permits and agreements and prepare final design · Construct selected projects 	\$ TBD												\$ TBD	
Total Cost and Cost by FY	\$620,000	\$225,000				\$215,000				\$180,000				\$ TBD



Activity E/F

Develop and implement a water-quality management plan to address current and future water-quality issues, protect beneficial uses, and develop strategic regulatory-compliance solutions to comply with new and evolving drinking water standards that achieve multiple benefits



Potential Outcomes of Activity E/F

Proactively address challenges and solutions to comply with new and potential future drinking water regulation

Enable the parties to make informed decisions on infrastructure improvements for water-quality management and regulatory compliance

Remove groundwater contaminants from the Chino Basin and thereby improve groundwater quality

Enable the parties to produce or leverage their water rights that may be constrained by water quality

Ensure that groundwater is pumped and thereby protect/enhance safe yield



Nexus to 2000 OBMP

PE 6—Develop and Implement Cooperative Programs with the Regional Board and Other Agencies to Improve Basin Management

- Assess water quality trends in the basin and evaluate the impact of OBMP implementation on water quality,
- to determine whether point and non-point contamination sources are being addressed by water quality regulators, and
- to collaborate with water quality regulators to identify and facilitate the cleanup of soil and groundwater contamination.

Activity EF is a refinement on PE 6 in that it seeks a more proactive and basin-wide approach to address contaminants of emerging concern (CECs) for addressing compliance with new and increasingly stringent drinking water regulations defined by the DDW



Nexus to 2000 OBMP

PE 3—Develop and Implement a Water Supply Plan for Impaired Areas

- provided for the construction and operation of regional groundwater desalters to pump and treat high-salinity groundwater
- recognized that the Desalters would intercept VOC contaminants associated with the Chino Airport and South Archibald plumes and that the Desalters could be used in the future to treat these contaminants (at some additional cost).

Activity EF is similar to PE 3 in that it seeks to evaluate the feasibility of regional solutions for the treatment of impaired areas that can provide multiple water supply benefits to achieve the goals of the OBMP



Considerations and Challenges

Three new MCLs affecting the Chino Basin since OBMP: perchlorate, hexavalent chromium, 1,2,3-TCP

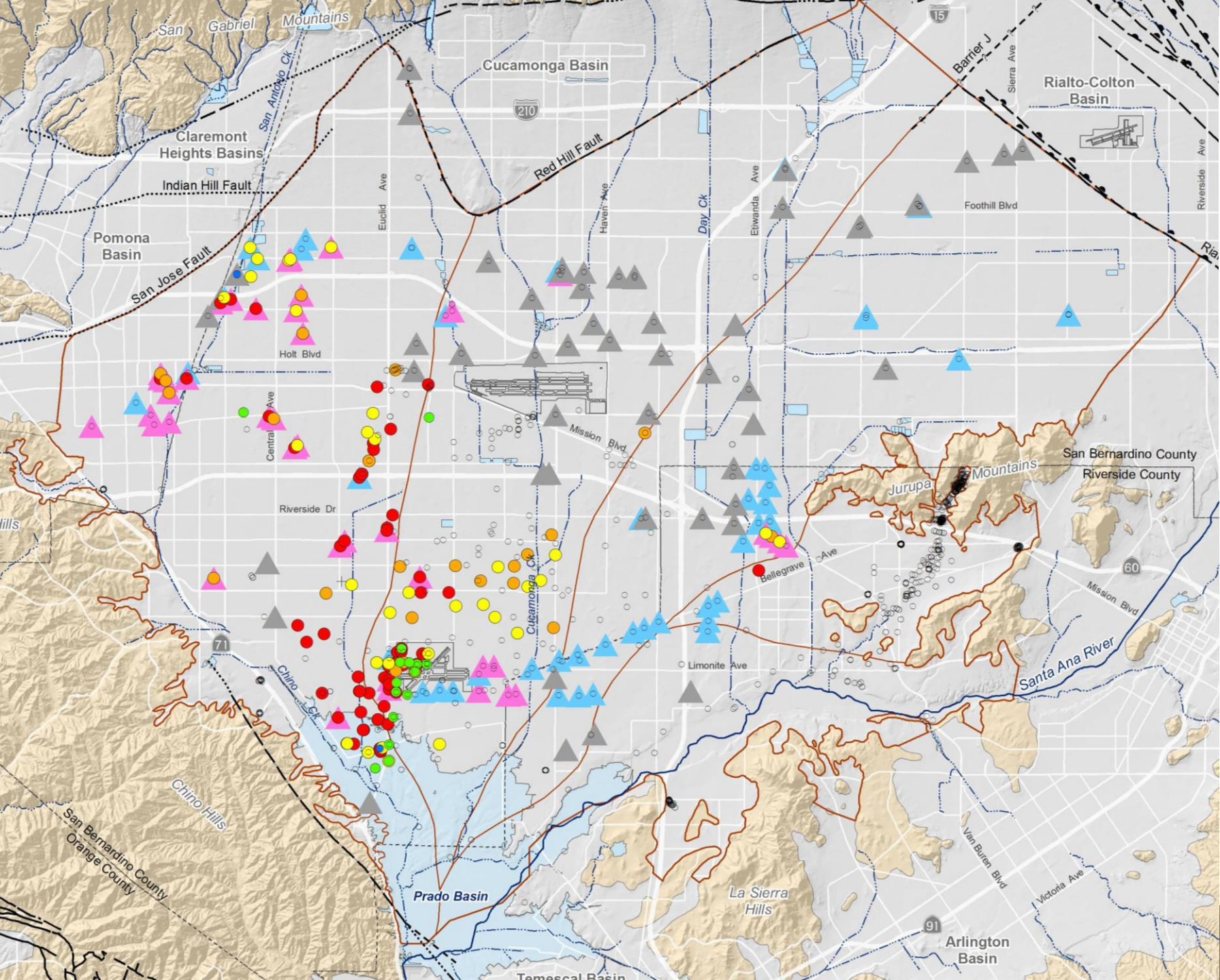
Since the 1980, DDW established NLs for 93 contaminants, 40 of which now have MCLs, including 1,2,3-TCP

Latest MCL for 1,2,3-TCP went into immediate effect

Monitoring for emerging contaminants and contaminants with NLs is not required; monitoring at lowest detection limits is not required

Important to understand which CECs are candidates for regulation, potential regulatory limits, and the occurrence in local/regional water supply.

Tracking and characterizing CECs considered for regulation will help to identify and plan for optimal solutions manage groundwater quality for drinking water supply.



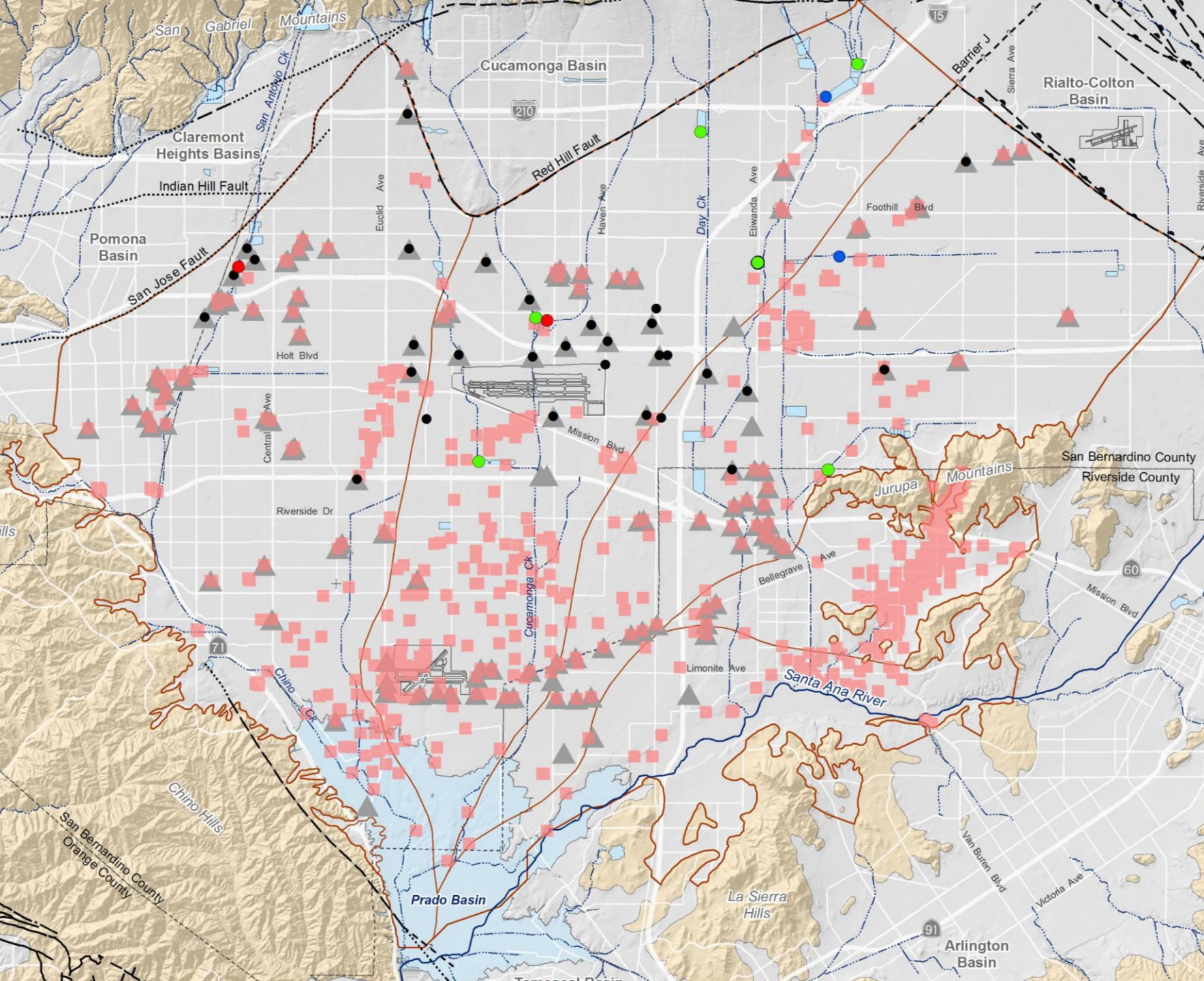
1,2,3-TCP (µg/l)

- ND
- < 0.0025
- 0.0025 - 0.005
- 0.005 - 0.01
- 0.01 - 0.02
- > 0.02

California Primary MCL = 0.005 µg/l

Active Municipal Supply Well

- ▲ Well with no contaminants that exceed the MCL
- ▲ Well with one contaminant that exceeds the MCL
- ▲ Well with two or more contaminants that exceed the MCL



Occurrence of PFOA and PFOS in Groundwater

- Well not Sampled for PFOA or PFOS
- Well Sampled for UCMR3 between 2013-2015 Using Detection Limits of 20 and 40 ngl, higher than the Current Notification Levels (NL) of 13 and 14 ngl

Occurrence of PFOA and PFOS in Blending Sources for Recycled Water Recharge

- Source Non-Detect for PFOA and PFOS
- Source with Detected Concentration Below the NLs of 13 and 14 ngl
- Source exceeding the NLs of 13 and 14 ngl
- ▲ Active Municipal Supply Well

Two Per- and Poly-fluorinated Compounds (PFAs) - PFOA & PFOS:

- 2018 CA NLs = 13 & 14 ngl (ppt)
- 2018 CA Response Level = 70 ngl
- MCL in the future
- Occurrence in Chino Basin not well characterized equivalent to NL; recharge water sources > NL
- Monitoring is necessary to understand occurrence and prepare new regulations



Roles and Responsibilities

Committee Members

- Comprised of representatives from all interested stakeholders
- Evaluates project opportunities and develops a plan to implement them

Watermaster

- Coordinates and administers the Committee
- Ensures Committee recommendations are consistent with Watermaster's governing documents
- Defines the monitoring plan, performs monitoring, collects and maintains the data collected
- Performs water quality assessments of the Chino Basin
- Prepares the final groundwater quality management plan

IEUA

- Identifies and describes potential water quality management projects
- Contracts for planning and engineering services, as required
- Coordinates with Watermaster and the parties



Scope of Work for Activity E/F

Task 1 – Convene the Water Quality Committee, develop objectives, and refine the scope of work

Task 2 – Develop and implement an initial emerging-contaminants monitoring plan

Task 3 – Perform a water quality assessment and prepare a scope to develop and implement a Groundwater Quality Management Plan

Task 4 – Develop planning, screening, and evaluation criteria

Task 5 – Identify and describe potential projects for evaluation

Task 6 – Conduct a reconnaissance-level study for the proposed projects

Task 7 – Prepare the *Groundwater Quality Management Plan*

Task 8 – Plan, design, and build water quality management projects



Scope of Work for Activity E/F

Task and Subtask Description	Engineering Cost	FY 2020/21				FY 2021/22				FY 2022/23				FY 2023/24 and beyond
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Task 1 Convene the Water Quality Committee, define objectives, and refine scope of work · Convene Water Quality Committee · Define objectives of Activity EF · Refine scope described in TM1 · Refine detailed cost and schedule	\$65,000	\$65,000												
Task 2 Develop and implement an initial emerging-contaminants monitoring plan · Determine contaminants of interest · Develop initial monitoring plan · Implement initial monitoring plan	\$95,000			\$50,000		\$45,000								
Task 3 Perform a water quality assessment and prepare a scope to develop and implement a Groundwater Quality Management Plan · Describe current and future challenges and solutions · Develop recommendations for long-term monitoring and assessment · Prepare scope to develop and implement a groundwater quality management plan · Prepare final assessment	\$135,000						\$80,000		\$55,000					
Total Cost and Cost by FY	\$295,000	\$115,000				\$125,000				\$55,000				\$ TBD



Scope of Work for Activity E/F

Task and Subtask Description	Engineering Cost	FY 2020/21				FY 2021/22				FY 2022/23				FY 2023/24 and beyond
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Task 4 Develop planning, screening, and evaluation criteria <ul style="list-style-type: none"> · Develop criteria to evaluate project cost and benefit · Review and finalize criteria 	\$ TBD												\$ TBD	\$ TBD
Task 5 Identify and describe potential projects for evaluation <ul style="list-style-type: none"> · Identify potential projects · Select projects for reconnaissance level study 	\$ TBD													\$ TBD
Task 6 Conduct a reconnaissance-level study for the proposed projects <ul style="list-style-type: none"> · Characterize potential treatment projects · Evaluate Projects · Prepare finance plan for soft-costs · Prepare implementation plan 	\$ TBD													\$ TBD
Task 7 Prepare the <i>Groundwater Quality Management Plan</i> <ul style="list-style-type: none"> · Prepare draft plan · Prepare final plan 	\$ TBD													\$ TBD
Task 8 Plan, design, and build water quality management projects <ul style="list-style-type: none"> · Prepare preliminary design report and CEQA documentation · Prepare finance plan for project implementation · Obtain permits and agreements and prepare final design · Construct selected projects 	\$ TBD													\$ TBD



Breakout Session

- Does anyone disagree that this Activity, as scoped, should be included in the OBMP Update? If you disagree, why, and what would you change?

- Does anyone disagree with the implementation schedule for this Activity? If you disagree, why, and what would you change?



Next Steps

- Review of the next 4 activities that will be documented in the 2020 OBMP Update Scoping Report
- Listening Session 6 (Aug 29, 2019)
 - Presentation of activities C/G, H/I/J, K, and L
- Listening Session 7 (Sept 2019)
 - Integration of 2020 OBMP Update Activities with 2000 OBMP Implementation Plan
- Please provide any addition feedback on TM1 (Part 1) by August 9, 2019 to etellezfoster@cbwm.org

OBMP Update Timeline

