

2020 OBMP Update

LISTENING SESSION 6

SEPTEMBER 11, 2019





Agenda

- Introductions
- Recap of 2020 OBMP Update Process
- 2020 OBMP Update Scoping Report (TM1) – Part 2
- Next Steps



Why Update the OBMP?

- Much has been accomplished in OBMP implementation, but not everything. Much OBMP work is ongoing.
- OBMP Program Elements (PE):
 1. **Monitoring Program**
 2. **Recharge Program**
 3. **Water-Supply Plan for Impaired Areas**
 4. **Subsidence Management**
 5. **Regional Supplemental Water Program**
 6. **Cooperative Programs with Regulators**
 7. **Salt Management**
 8. **Storage Management**
 9. **Storage and Recovery Programs**



Examples of OBMP Accomplishments and Ongoing/Future Efforts

- **Chino Desalter Program (PE 3)** – Desalter production has increased to about 40,000 afy in the southern portion of the basin to replace declining agricultural pumping
- **Accomplishments:**
 - Impaired groundwater is being put to beneficial use
 - Groundwater losses to the Santa Ana River have been minimized, which is protecting surface-water quality
 - Santa Ana River recharge is contributing to the Safe Yield
 - Hydraulic Control has been achieved, which has allowed the implementation of the recycling programs (Maximum Benefit)
 - Salts, nutrients and other contaminants are being removed from the basin
- **Ongoing/Future Efforts:**
 - Maintain Hydraulic Control
 - Potential expansion as part of new Storage and Recovery Programs
 - Assist with cleanup of contaminant plumes (Chino Airport and South Archibald VOC plumes)



Examples of OBMP Accomplishments and Ongoing/Future Efforts

- **Storage Management (PE 8) and Storage and Recovery Programs (PE 9)**
- Accomplishments:
 - Storage of over 500,000 acre-feet of local waters
 - Implementation of a 100,000 af Dry-Year-Yield Program with MWDSC
- Ongoing/Future Efforts:
 - Update of the Storage Management Plan
 - Development and evaluation of new Storage and Recovery Programs
 - DYYP renewal (2028)
 - Others



Why Update the OBMP?

- The OBMP is a 19-year-old water-resources management plan that was Court-ordered
- The OBMP Implementation Plan needs to be updated
 - The OBMP goals remain the same, but the OBMP IP is no longer an accurate description of the status, future actions, and schedule for OBMP implementation
- The CEQA documentation needs to be updated
 - The PEIR and SEIR for the OBMP are eighteen and eight years old, respectively
 - Knowledge of the basin's characteristics has improved since these documents were adopted, water management challenges have intensified, and environmental considerations have changed
 - Current CEQA documentation may be too old to be relied upon for receiving grant funding and low-interest loans
 - Decisions based on current CEQA evaluations may be vulnerable to scrutiny and challenge



Why Update the OBMP?

- Understanding of the basin hydrogeology and hydrology has improved since 2000, and new water management challenges have been identified that need to be addressed to ensure long-term groundwater pumping sustainability
- The strategic drivers/trends that shaped the OBMP in the late 1990s have since changed

Drivers/Trends

- Climate change
- New legislation and regulations
- Degrading quality of all water supplies
- Increased outside interests in Chino Basin
- Increased competition of grants/low-interest loans
- Improvements in science and technology



Basin Management Implications

- Reductions in Chino Basin safe yield
- Chino Basin water quality degradation
- Increased cost of groundwater use
- Reduced imported water availability
- Imported water quality degradation
- Reduced recycled water availability and increased cost
- Recycled water quality degradation
- Increased cost of Basin Plan compliance



Why Update the OBMP?

OBMP Update White Paper:

- “In the absence of an updated OBMP, it will grow increasingly difficult to maintain current and projected groundwater pumping and recycled water reuse and to utilize the unused storage capacity in the basin.”
- “An updated OBMP will provide the Judgment parties with: a program-level water resources management plan that maximizes their pumping rights, use of recycled water, use of storage space, and an updated CEQA document to provide certainty for implementation.”



Process to Update the OBMP

2000 OBMP

OBMP Phase 1 Report

1. Introduction
2. State of the Basin
3. OBMP Goals
4. Management Plan

OBMP Implementation Plan Program Elements (PEs)

1. Monitoring
2. Recharge Program
3. Water Supply Plan for Impaired Areas
4. Subsidence Management
5. Regional Supplemental Water Program
6. Cooperative Program with Regulators
7. Salt Management Plan
8. Storage Management Plan
9. Storage and Recovery Programs

Peace Agreement



OBMP
PEIR

2020 OBMP Update

2020 OBMPU Scoping Report (TM1)

1. Introduction
2. Development of Activities
3. Scope of Work to Perform Proposed 2020 OBMP Update Activities.
 - Activity A: New and Improved Recharge Facilities
 - Activity B: Optimize Storage and Recovery Programs
 - Activity D: Maximize use of Recycled Water
 - Activity E/F: WQ Management Plan and Strategic Compliance Solutions
 - Activity C/G: Regional Conveyance and Treatment
 - Activity K: Salt and Nutrient Management
 - Activity L: Appropriate Monitoring

Harmonize 2000
OBMP PEs with
2020 OBMP
Update Activities

2020 OBMP Update Report (TM2)

1. Introduction
2. Goals
3. Mapping of Activities with Program Elements
4. Management Plan

2020 OBMP Implementation Plan

Implementation Agreement



2020 OBMP
PEIR



2020 OBMP Update Process Recap

- Listening Session 1:
 - History of the OBMP
 - Rationale for an update to the OBMP
 - Drivers, Trends and Implications
- Listening Session 2:
 - Issues, Needs and Wants
 - Goals and Impediments
- Listening Session 3:
 - 2020 OBMP Goals
 - 2020 OBMP Update Proposed Activities
- Listening Session 4:
 - 2020 OBMP Update Proposed Activities
 - Nexus between Proposed Activities, Goals and Impediments
- Listening Session 5:
 - 2020 OBMP Update Scoping Report (TM1) Pt. 1 review and comments
- Listening Session 6:
 - 2020 OBMP Update Process
 - 2020 OBMP Update Scoping Report (TM1) Pt. 2 review and comments



Example: How were the activities developed and scoped, and what happens next?

- Activity EF: *Develop and implement a water-quality management plan to address current and future water-quality issues, protect beneficial uses, and strategic regulatory-compliance solutions that achieve multiple benefits.*
 - Issues, Needs and Wants (Section 2, Table 1 of Scoping Report)
 - Goals and Activities (Section 2, Table 2 of Scoping Report)
 - Desired Activity Outcomes (Section 2, Table 3 of Scoping Report)
 - Scope of Work (Section 3 of Scoping Report)
 - Harmonization with 2000 OBMP Program Elements (TM2 – 2020 OBMP Update Report)
 - 2020 Implementation Actions (TM2 – 2020 OBMP Update Report)

Chino Basin Water Quality Degradation

Develop a water quality management plan to ensure ability to produce groundwater rights

Develop regional infrastructure to address water quality contamination and treatment

Plan for and be prepared for new drinking water quality regulations that may result in an increase in groundwater treatment and costs

Be more proactive and engaged in the process to develop new drinking water quality regulations

Chino

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Develo

Plan for an
increase in g

Be more proactive
regulations

Addressed by Activities in Table 3*	Alignment with 2000 OBMP Goals
G,	2, 3
, B, , E, F, G, I, J	2
E, F	2
A, B, D, E, G, J	2

Water Quality Degradation

with recycled water and dilution require

OBMP Goal #2: Protect and Enhance Water Quality

Table 2
Activities for Consideration in the 2020 OBMP Update

ID	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
B	Develop, implement, and optimize storage-and-recovery programs to increase water-supply reliability, protect or enhance Safe Yield, and improve water quality.
C	Identify and implement regional conveyance and treatment projects/programs to enable all stakeholders to exercise their pumping rights and minimize land subsidence.
D	Maximize the reuse of recycled water produced by IEUA and others
E	Develop and implement a water-quality management plan to address current and future water-quality issues and protect beneficial uses
F	Develop strategic regulatory-compliance solutions to comply with new and evolving drinking water standards that achieve multiple benefits in managing water quality
G	Optimize the use of all sources of water supply by improving the ability to move water across the basin and amongst stakeholders, prioritizing the use of existing infrastructure.
H	Develop an equitable distribution of costs/benefits of the OBMP Update and include in the OBMP update agreements
I	Develop regional partnerships to implement the OBMP Update and reduce costs and include in OBMP Update agreement
J	Continue to identify and pursue low-interest loans and grants or other external funding sources to support the implementation of the OBMP Update
K	Develop management strategy within the Salt and Nutrient Management Plan to ensure ability to comply with dilution requirements for recycled water recharge
L	Perform the appropriate amount of monitoring and reporting required to fulfill basin management and regulatory compliance

Impediments

Goal 2 - Protect and Enhance Water Quality

- 2a • Areas of the basin are contaminated with VOCs, nitrate, perchlorate and other contaminants of emerging concern (CECs).
- Water-quality regulations are evolving and becoming more restrictive, which limits the beneficial uses of groundwater.
 - Groundwater treatment may be necessary to meet beneficial uses, but can be expensive to build and operate.
 - The basin is hydrologically closed, which causes accumulation and concentration of salts, nutrients, and other contaminants.
 - Some stored water in the Chino Basin cannot be used due to water quality and insufficient treatment capacity
 - Recharge sources may contribute CECs to the groundwater basin

Table
to the Goals, Activities to
Addressing the Issues Ne

Remove Impediments

with VOC and future beneficial uses

regulatory-compliance solutions and evolving drinking water are multiple benefits in

Potential Outcomes of Activities

- Proactively addresses new and near-future drinking water regulations.
- Enables the parties to make informed decisions on infrastructure improvements for water-quality management and regulatory compliance.
- Removes groundwater contaminants from the Chino Basin and thereby improves groundwater quality.
- Enables the parties to produce or leverage their water rights that may be constrained by water quality.
- Ensures that groundwater is pumped and thereby protects/enhances the safe yield.

Organized by Basin
Assessed by Activities

Increased Cost of Basin Plan Compliance	Reduced Recycled Water Availability and Increased Cost	Reduced Imported Water Availability and Increased Cost
		✓



2020 OBMP Scoping Report (TM1)

- Section 1: Introduction to 2020 OBMP Update
- Section 2: Documentation of Activity Development
- Section 3: Scope of Work For each Activity:
 - Objective
 - Desired Outcomes to address INWs
 - Nexus to 2000 OBMP
 - Need and Function
 - Scope of Work
 - Implementation Actions, Schedule, and Engineering Cost

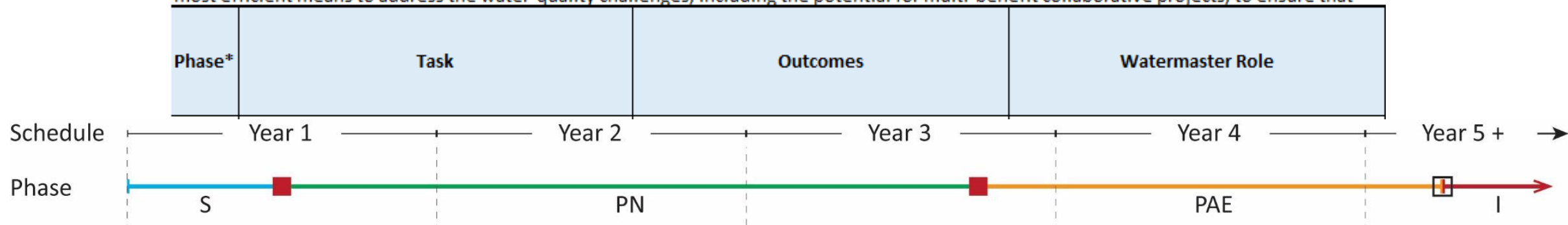


What is an Activity?

- Each activity is a **management process** to **optimize** some aspect of basin management, such as water quality
- The scope of work is the methodical process to characterize and analyze the basin management challenge and associated data to define potential management alternatives and determine the optimum management solution(s)
 1. Scoping
 2. Evaluate the Need for Projects/Management Strategies
 3. Define and Evaluate Project/Management Alternatives
 4. Implementation
- The process of implementing the activities may or may not result in the identification of projects to optimize basin management.
- If in implementation of an activity, a project is identified to optimize basin management, then the parties will evaluate their level of participation in the projects.

2020 OBMP Update - Activity EF

Need and Objectives: Groundwater contaminants are present across the Chino Basin, new contaminants are being discovered, and water-quality regulations are evolving and becoming more restrictive. These trends are limiting the beneficial use of groundwater and increasing the cost of the water supply. The objectives of Activity EF are to characterize the water-quality challenges across the Chino Basin and identify the most efficient means to address the water-quality challenges, including the potential for multi-benefit collaborative projects, to ensure that



Key



Go/no-go decision point to proceed with activity



Go/no-go decision point to select projects for implementation

Phase	Task	Outcomes	Watermaster Role
PAE	4 – Develop planning, screening, and evaluation criteria	Conceptual design and operating plans for project alternatives;	Technical support role to evaluate project alternatives and characterize potential for MPI (if necessary)
	5 – Identify and describe potential projects for evaluation	Understanding of cost to manage Chino Basin groundwater quality with and without collaborative projects;	
	6 – Conduct a reconnaissance-level study for the proposed projects	Management plan to document project implementation plan and supporting info	
	7 – Prepare the Groundwater Quality Management Plan		
I	8 – Plan, design, and build water quality management projects	Groundwater quality improvement projects	None

*Phase Descriptions: S = Scoping PN = Evaluate need for project PAE = Project alternative evaluation I = Implementation



Transition from Scoping Report to 2020 OBMP Update Report

- TM1 will be finalized based on the feedback from the stakeholders
- The implementation actions for each of the Activities in the Scoping Report will be harmonized with the 2000 OBMP Program Elements to develop a revised management plan (implementation actions) for each Program Element
- The final Program Element implementation actions, inclusive of new and old actions, will be documented in the 2020 OBMP Update Report and 2020 OBMP Implementation Plan



Harmonize PE6 and Activity EF

○ **2000 OBMP PE6 Objectives**

PEs 6 and 7 were included in the OBMP to address the water quality management problems in the Basin. The specific water quality issues addressed by PE 6/7 include:

- Watermaster needs to routinely characterize water quality trends and assess how water quality has changed as a result of the implementation of the OBMP
- To characterize and address point and non-point sources of groundwater contamination
- Legacy contamination in the vadose zone from past agricultural activities that will continue to impact groundwater quality long into the future
- Ongoing salt and nutrient loading

○ **2020 OBMP Update Activity EF Objectives**

- collect and analyze the data and information needed to characterize and proactively plan for the water quality challenges to pumping groundwater for municipal supply in a constantly evolving regulatory environment.
- evaluate the treatment and related infrastructure improvements, including the potential for multi-benefit collaborative projects, that can be implemented to ensure groundwater can be pumped for beneficial use as new drinking water regulations are adopted



PE6 vs. Activity EF Implementation Actions

○ 2000 OBMP IP – PE6

○ 2020 OBMP Update IP



PE6 vs. Activity EF Implementation Actions

○ 2000 OBMP IP – PE6

- Watermaster will form an ad hoc committee, hereafter **water quality committee**.

○ 2020 OBMP Update IP

- Reconvene the **Water Quality Committee**, define objectives, and refine scope of work



PE6 vs. Activity EF Implementation Actions

○ 2000 OBMP IP – PE6

-
- Watermaster will **refine its monitoring efforts** to support the detection and quantification of water quality anomalies.

○ 2020 OBMP Update IP

-
- Develop and implement initial emerging contaminants **monitoring plan**



PE6 vs. Activity EF Implementation Actions

○ 2000 OBMP IP – PE6

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-
- If necessary, Watermaster will **conduct investigations** to assist the Regional Board in accomplishing mutually beneficial objectives.

○ 2020 OBMP Update IP

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-
- Prepare a **water quality assessment** of the Chino Basin and recommendations for a long-term monitoring and assessment program and the scope effort for next steps to optimize mgmt.



PE6 vs. Activity EF Implementation Actions

○ 2000 OBMP IP – PE6

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○ Annually **update priority list and schedule** for cleaning up all known water quality anomalies.

○ 2020 OBMP Update IP

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-
-

○ Implement **long-term monitoring and assessment** program (continues every year thereafter, subject to periodic modifications).



PE6 vs. Activity EF Implementation Actions

○ 2000 OBMP IP – PE6

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- Implement **projects of mutual interest**
- Watermaster will seek funding from outside sources to accelerate detection and clean-up efforts.

○ 2020 OBMP Update IP

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- Perform reconnaissance-level engineering study to address water quality in Chino Basin with and without **collaborative projects**
- Prepare a Groundwater Quality Management Plan to document water quality improvement projects implementation plan
- Implement Groundwater Quality Management Plan, including design, build, and construct selected projects



PE6 vs. Activity EF Implementation Actions

○ 2000 OBMP IP – PE6

- Watermaster will form an ad hoc committee, hereafter **water quality committee**.
- Watermaster will **refine its monitoring efforts** to support the detection and quantification of water quality anomalies.
- If necessary, Watermaster will **conduct investigations** to assist the Regional Board in accomplishing mutually beneficial objectives.
- Annually **update priority list and schedule** for cleaning up all known water quality anomalies.
- Implement **projects of mutual interest**
- Watermaster will seek funding from outside sources to accelerate detection and clean-up efforts.

○ 2020 OBMP Update IP

- Reconvene the **Water Quality Committee**, define objectives, and refine scope of work
- Develop and implement initial emerging contaminants **monitoring plan**
- Prepare a **water quality assessment** of the Chino Basin and recommendations for a long-term monitoring and assessment program and the scope effort for next steps to optimize mgmt.
- Implement long-term **monitoring and assessment program** (continues every year thereafter, subject to periodic modifications).
- Perform reconnaissance-level engineering study to address water quality in Chino Basin with and without **collaborative projects**
- Prepare a Groundwater Quality Management Plan to document water quality improvement projects implementation plan
- Implement Groundwater Quality Management Plan, including design, build, and construct selected projects

2000 OBMP

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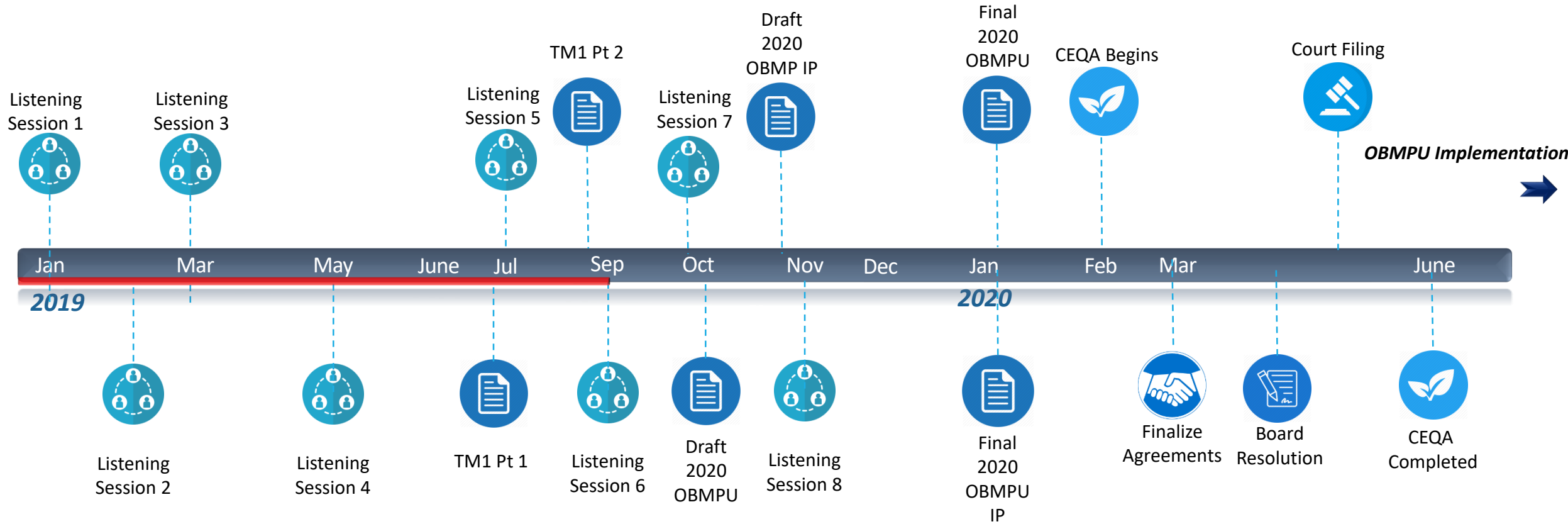
2020 OBMP Implementation Plan

Implementation Agreement



2020 OBMP
PEIR

OBMP Update Timeline





2020 OBMP Update Process Recap

- Open Discussion – Q&A
- Is the process clear to you?
- Could you explain the process to someone who didn't attend the meeting today?
- If the process is not clear, what are your specific questions?

If you have additional questions later, please reach out to Edgar Tellez Foster (etellezfoster@cbwm.org) to discuss



BREAK

○ 10 min



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



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 EF** -- *Develop and implement a water-quality management plan...*



2020 OBMP Update Scoping Report – Part 2

- **Activity L** -- *Perform the appropriate amount of monitoring and reporting required to fulfill basin management and regulatory compliance*
- **Activity K** -- *Develop a management strategy within the salt and nutrient management plan to ensure the ability to comply with the dilution requirements for recycled water recharge*
- **Activity CG** -- *Identify and implement regional conveyance and treatment projects/programs ...*
- **Process to Accomplish HIJ** –
 - *Develop an equitable distribution of costs/benefits of the OBMP Update and include in the OBMP Update agreements*
 - *Develop regional partnerships to implement the OBMP Update and reduce costs and include in the OBMP Update agreements*
 - *Continue to identify and pursue low-interest loans and grants or other external funding sources to support the implementation of the OBMP Update*

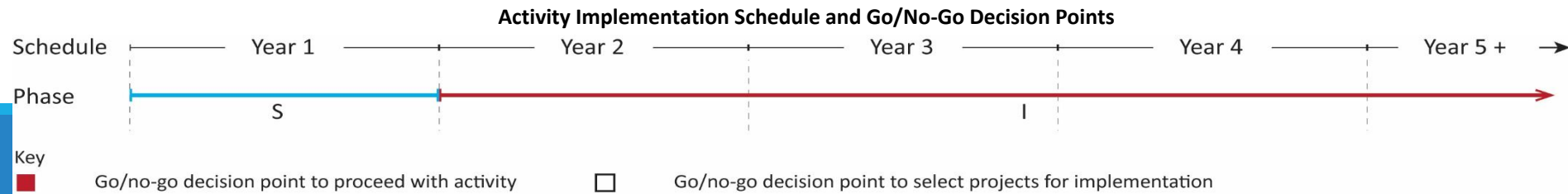


2020 OBMP Update - Activity L
 Perform the appropriate amount of monitoring and reporting required to fulfill basin management and regulatory compliance

Need and Objectives: Watermaster conducts data-collection programs and prepares reports and data deliverables to comply with regulations, to fulfill its obligations under its agreements and Court orders, to comply with its requirements under CEQA, and to assess the performance of the evolving OBMP IP, including the 2020 OBMP Update. These monitoring and reporting efforts are described in Exhibit L-1, and will need to continue. The objective of Activity L is to refine the monitoring and reporting requirements of Watermaster to ensure that the objectives of each requirement are being met efficiently at a minimum cost.

Phase*	Task	Outcomes	Watermaster Role	Are these outcomes necessary for Watermaster to Administer the Physical Solution or Comply with Other Requirements?
S, PN	1 – Convene Monitoring and Reporting Committee and prepare the Monitoring and Reporting Work Plan	Comprehensive review of all monitoring/reporting programs in an open stakeholder process; <i>Monitoring and Reporting Work Plan</i> ; Technical Memo: <i>Recommended Revisions to Watermaster’s Non-Discretionary Monitoring and Reporting Programs</i>	Lead committee; Prepare work plan	No, however, monitoring and reporting are required to implement the Judgment and comply with regulations and Watermaster obligations. Since the beginning of OBMP implementation, Watermaster staff and engineer have continually refined the monitoring and reporting efforts to meet all requirements and achieve efficiencies (see Exhibit L-1) and will continue to do so. This activity continues these refinement efforts in closer collaboration with the parties.
I	2 – Implement recommendations in Monitoring and Reporting Work Plan	Revisions to Watermaster’s non-discretionary monitoring and reporting programs Future updates to the Monitoring and Reporting Work Plan	Technical demonstrations to the appropriate regulatory body to gain approval for revisions to the monitoring/reporting program; Update work plan, when necessary	
PN, I	3 – (recurring future task) – Bi-Annual review of scope of work and cost to implement the Monitoring and Reporting Work Plan in the subsequent fiscal year	Update to <i>Monitoring and Reporting Work Plan</i> A scope of work and budget for the subsequent fiscal year	Convene committee; Update the work plan; Prepare scope and budget recommendation for subsequent year	

*Phase Descriptions: S = Scoping PN = Evaluate need for project PAE = Project alternative evaluation I = Implementation





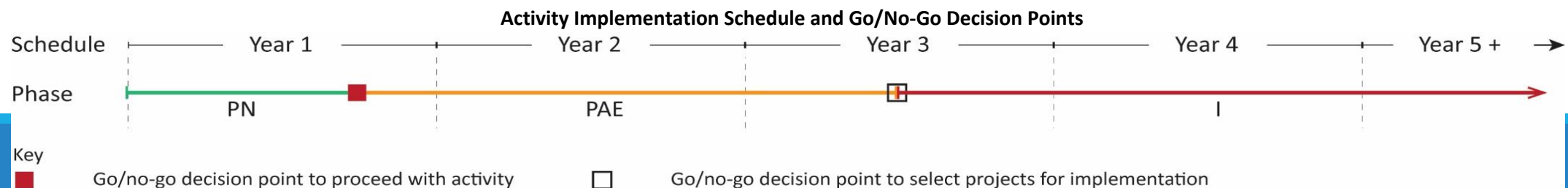
2020 OBMP Update - Activity K:

Develop a management strategy within the salt and nutrient management plan to ensure the ability to comply with the dilution requirements for recycled water recharge

Need and Objectives: The Watermaster and IEUA implement a recycled water recharge program to improve supply reliability. The Maximum Benefit SNMP requires that the recharge be diluted with other sources of low-salinity water to comply with Basin Plan Objectives. If sufficient dilution supplies are not available to comply with the dilution metric, treatment of recycled water, or other salt offset program will be required by the Regional Board. The objective of this activity is to determine if compliance with the Maximum Benefit SNMP recycled water recharge dilution requirements can be achieved under existing management plans, and if not, to develop a plan to achieve compliance.

Phase	Task	Outcomes	Watermaster Role	Are these outcomes necessary for Watermaster to Administer the Physical Solution or Comply with Other Requirements ?
S/PN	1 – Prepare projection to evaluate compliance with recycled water dilution requirements 5 – Periodically reevaluate compliance with dilution requirements	understanding of ability to comply with the TDS and nitrate dilution requirements in the SNMP (near-term and long-term)	Perform technical work in collaboration with IEUA	Yes
PAE	2 – Identify alternative compliance strategies 3 – Evaluate alternative compliance strategies	conceptual design, operating plans, and costs of project alternatives Report to document compliance plan and supporting info	Technical support role to IEUA to evaluate hydrogeologic impacts of project alternatives	Yes
I	4 – Implement the selected compliance strategy	Compliance project (or other compliance action)	Level of support depends on the compliance action	Yes

**Phase Descriptions: S = Scoping PN = Evaluate need for project PAE = Project alternative evaluation I = Implementation*





2020 OBMP Update - Activity CG:

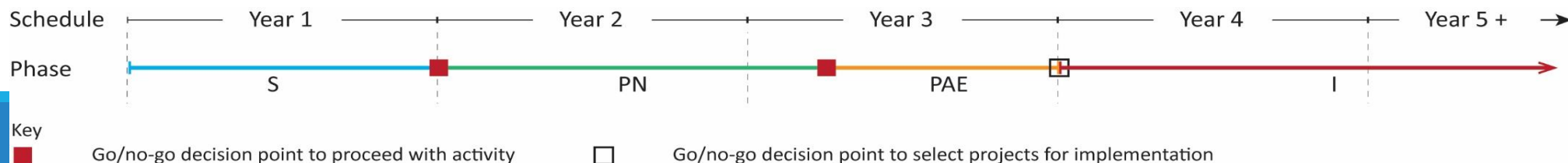
Identify and implement regional conveyance and treatment projects/programs to enable all stakeholders to exercise their pumping rights and minimize land subsidence AND Optimize the use of all sources of water supply by improving the ability to move water across the basin and amongst stakeholders, prioritizing the use of existing infrastructure

Need and Objectives: The parties have identified that there are basin management challenges, such as land subsidence and poor water quality, that could limit their ability to exercise their pumping rights using existing infrastructure. Additionally, There are numerous challenges to the reliability of the non-Chino Basin groundwater water supplies available to the Chino Basin parties and the infrastructure that deliver them. The objectives of Activity CG is to optimize the use of all sources of water available to the parties to meet their demands despite these challenges and potentially help mitigate them.

Phase	Task	Outcomes	Watermaster Role	Are these outcomes necessary for Watermaster to Administer the Physical Solution or Comply with Other Requirements ?
S	1 - Form the Water Supply Reliability Committee, define objectives, and refine scope	Mutual understanding of the universe of water reliability concerns of parties	Could convene committee, or just serve support role to IEUA	No
PN	2 - Characterize water demands, water supply plans, and existing/planned infrastructure and its limitations	Identify opportunities and limitations in the existing/planned infrastructure to meet reliability goals defined in Task 1	Technical support role to IEUA or other activity lead	No
PAE	3 – Develop planning, screening, and evaluation criteria 4 – Identify and describe water supply reliability opportunities 5 – Develop reconnaissance-level engineering design and operating plan	Conceptual design, operating plans, and costs of reliability alternatives Project implementation plan	Technical support role to IEUA or other activity lead	No
I	6 – Plan, design, and build water reliability projects	Projects	None	No

*Phase Descriptions: S = Scoping PN = Evaluate need for project PAE = Project alternative evaluation I = Implementation

Activity Implementation Schedule and Go/No-Go Decision Points





Process to Accomplish H, I and J

Activity H is to:

Develop an equitable distribution of costs/benefits of the OBMP Update and include in the OBMP Update agreements

Activity I is to:

Develop regional partnerships to implement the OBMP Update and reduce costs and include in the OBMP Update agreements

Activity J is to:

Continue to identify and pursue low-interest loans and grants or other external funding sources to support the implementation of the OBMP Update



Process to Accomplish H, I and J

Goal #4 of the 2000 OBMP and 2020 OBMP Update: *Equitably Finance the OBMP*

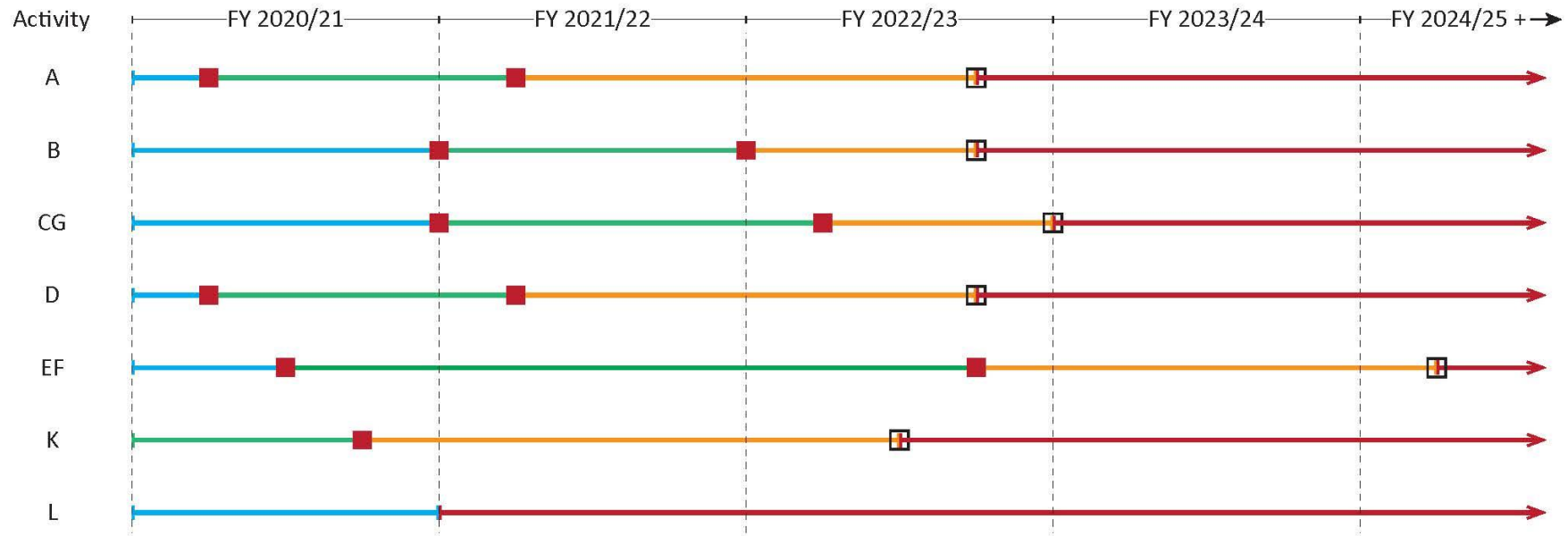
- There were no Program Elements in the 2000 OBMP related to Goal #4. All of the PEs were related to basin management issues.
- The Peace and Peace II Agreements and OBMP project implementation agreements established cost allocations for certain activities
- The benefits and costs were based on negotiations among the parties and encouraged the use of grant funding to build projects
- These funding mechanisms are still in place today
- The management framework of the OBMP IP and implementation agreements enabled the parties to obtain tens of millions of dollars in grants and other outside funding to implement the OBMP



Process to Accomplish H, I and J

- Costs of the OBMP IP, include among others:
 - Watermaster expenses for engineering work to implement the OBMP IP, including implementation costs for certain projects
 - Watermaster expenses for other project costs (recharge debt payments, recharge O&M, etc.)
 - Desalter replenishment and related monitoring expenses
 - IEUA recycled water recharge expenses
 - Individual agency costs for water management activities implemented by the OBMP
- The benefits of the Peace and Peace II were evaluated in 2007
 - \$904 million net present value (2007\$)
- Based on the scopes of work for the 2020 OBMP Update Activities, there are 2-4 years of scoping and preliminary engineering work to be performed to develop the level of detail required to quantify the benefits and costs from project implementation

Exhibit HIJ-1 Process and Schedule to Implement the OBMP Update Activities



Key

- ▬ Scoping effort
- ▬ Evaluation of need for projects
- ▬ Project Evaluation
- ▬ Implementation
- Go-no-go decision points to proceed with activity
- Go-no-go decision to select projects for implementation



Process to Accomplish H, I and J

- The objectives for Activities H, I, and J can be efficiently met by incorporating tasks within the other Activities to characterize the benefits and costs of the projects produced by the activities:
 - Each activity has tasks related to identifying and evaluating project alternatives to achieve the activity's objectives
 - In the project evaluation phase, the scope of work should include a process to articulate and value the benefits of interest to the stakeholders in establishing equitable cost allocations
 - The project benefits to analyze and value would be defined during the step to develop criteria for selecting projects



Process to Accomplish H, I and J

- As an example:
 - the project alternatives evaluation would include a characterization of implementation benefits and costs (Watermaster expenses and other costs) and their allocation to participants under various levels of participation and cost allocation methods.
 - The benefit and cost projections, together with the other engineering analyses, could then be used by the parties to select a cost allocation method, prepare projections of costs to support planning of financial resources for implementation, and develop a project implementation agreement that will clearly establish the allocation of benefits and costs to each party.
- With regard to the identification and valuation of benefits, the parties could address this on a case-by-case (project-by-project) basis, or by developing and agreeing to a standard set of benefits to analyze and quantify for every project to achieve equitable cost allocations.



Process to Accomplish H, I and J

- The steps to achieve an equitable allocation of benefits and costs should be addressed in the implementation agreement that will be developed by the parties to implement the 2020 OBMP Update.
- The 2020 OBMP implementation agreement could be designed to:
 - ensure that the desired extent of cost/benefit assessments are performed to support equitable cost allocations,
 - anticipate and accommodate the development of project implementation agreements that define the project-specific cost/benefit allocation, and
 - periodically update cost projections for implementation of the 2020 OBMP Update activities and associated projects to support planning of financial resources.



Next Steps

- Finalize 2020 OBMP Update Scoping Report (TM1)
 - Comments due September 25, 2019
- Listening Session 7 (October 2019)
 - Discuss the harmonization of existing Program Elements with new proposed Activities
 - Discuss 2020 Program Elements implementation actions
 - Discuss 2020 OBMP Update Report Outline (TM2)



Next Steps

- Finalize 2020 OBMP Update Scoping Report (TM1)
 - Comments due September 25, 2019
- Listening Session 7 (October 2019)
 - Discuss the harmonization of existing Program Elements with new proposed Activities
 - Discuss 2020 Program Elements implementation actions
 - Discuss 2020 OBMP Update Report Outline (TM2)

2000 OBMP

OBMP Phase 1 Report

1. Introduction
2. State of the Basin
3. OBMP Goals
4. Management Plan

OBMP Implementation Plan Program Elements (PEs)

1. Monitoring
2. Recharge Program
3. Water Supply Plan for Impaired Areas
4. Subsidence Management
5. Regional Supplemental Water Program
6. Cooperative Program with Regulators
7. Salt Management Plan
8. Storage Management Plan
9. Storage and Recovery Programs

Peace Agreement



OBMP PEIR

2020 OBMP Update

2020 OBMPU Scoping Report (TM1)

1. Introduction
2. Development of Activities
3. Scope of Work to Perform Proposed 2020 OBMP Update Activities.
 - Activity A: New and Improved Recharge Facilities
 - Activity B: Optimize Storage and Recovery Programs
 - Activity D: Maximize use of Recycled Water
 - Activity E/F: WQ Management Plan and Strategic Compliance Solutions
 - Activity C/G: Regional Conveyance and Treatment
 - Activity K: Salt and Nutrient Management
 - Activity L: Appropriate Monitoring

We are here

Harmonize 2000 OBMP PEs with 2020 OBMP Update Activities

2020 OBMP Update Report (TM2)

1. Introduction
2. Goals
3. Mapping of Activities with Program Elements
4. Management Plan

2020 OBMP Implementation Plan

Implementation Agreement



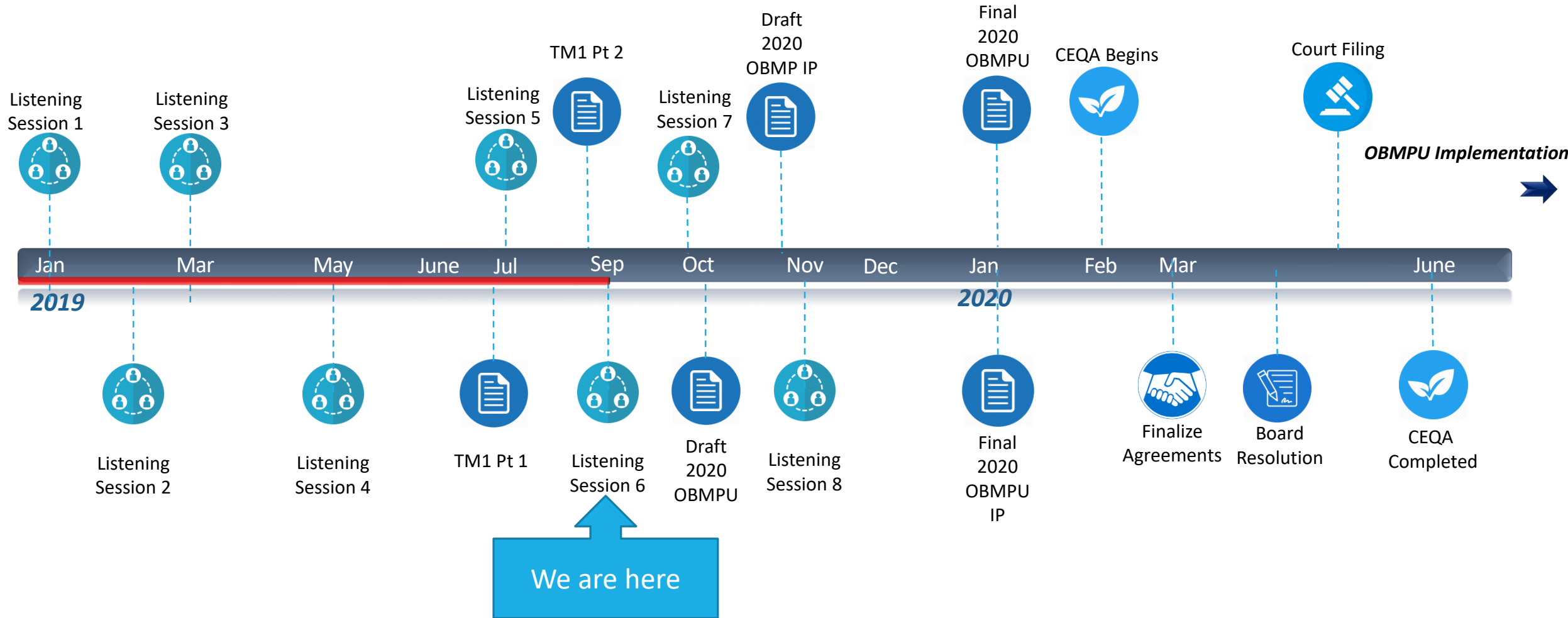
2020 OBMP PEIR



Next Steps

- Goal for Schedule → Have an updated OBMP IP/Agreement and PEIR by June 2020, if possible
- Reasons for urgency
 - Current OBMP and PEIR are ~20 years old
 - Protect use of basin storage from challenges
 - Manage storage for Parties' benefit, including S&R opportunities
 - Trends in the Chino Basin:
 - Reductions in safe yield
 - Degradation of water quality
 - Increasing regulations
 - Reductions in water-supply reliability
 - Increasing costs
 - Increasing competition for grants/loans
- Goals of the OBMP
 - Maximize pumping rights, use of recycled water, and use of storage space
 - Have an updated PEIR to provide certainty for OBMP implementation

OBMP Update Timeline



End of Presentation





Exhibit L-8
Cost Estimate and Schedule to Implement Activity L

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 Monitoring and Reporting Committee and prepare the Monitoring and Reporting Work Plan <ul style="list-style-type: none"> · Convene Monitoring and Reporting Committee · Conduct (5) meetings to prepare Work Plan and develop recommended revisions · Prepare Monitoring and Reporting Work Plan · Prepare memorandum: Recommended Revisions to Watermaster's Non-Discretionary Monitoring and Reporting Programs 	\$125,000													
Task 2 Implement Recommended Revisions to Watermaster's Non-Discretionary Monitoring and Reporting Programs	\$ TBD												\$ TBD	\$ TBD
Task 3 Annual review of scope of work and cost to implement the Monitoring and Reporting Work Plan in the Subsequent Fiscal Year	\$ TBD												\$ TBD	\$ TBD
Total Cost and Cost by FY	\$125,000	\$60,000				\$65,000				\$ TBD				\$ TBD

TBD -- To be determined



**Exhibit K-4
Cost Estimate and Schedule to Implement Activity K**

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 Prepare projection to evaluate compliance with recycled water recharge dilution requirements. · Prepare projections · Evaluate projections for future wet and dry periods within 5 and 10 years · Determine the if there is a compliance challenge	\$0	\$0												
Task 2 Identify alternative compliance strategies · Identify potential compliance strategies · Select projects for reconnaissance level study	\$ TBD					\$ TBD								
Task 3 Evaluate alternative compliance strategies · Characterize alternative compliance strategies · Rank alternatives · Prepare finance plan for soft-costs · Prepare report	\$ TBD								\$ TBD	\$ TBD				\$ TBD
Task 4 Implement the alternative compliance strategy · 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
Task 5 Periodically re-evaluate compliance with dilution requirements · Prepare projections of the dilution metric on a five-year frequency · Annually report current and future compliance with the dilution limit	\$ TBD													\$ TBD
Total Cost and Cost by FY	\$0	\$0				\$ TBD				\$ TBD				\$ TBD

TBD -- To be determined



**Exhibit CG-5
Cost-Estimate and Schedule to Implement Activity CG OBMP Update**

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 Supply Reliability Committee, define objectives, and refine scope of - Convene Water Supply Reliability Committee - Define objectives of Activity CG - Define reliability and other benefits expected from Activity CG - Refine scope described in TM1 - Refine detailed cost and schedule	\$95,000	\$95,000												
Task 2 Characterize water demands, water supply plans and existing/planned infrastructure and their - Characterize the water supplies and future water demands - Characterize exiting infrastructure to convey, treat, and distribute the supplies to meet the demands - Identify limitations to the existing infrastructure	\$210,000				\$70,000	\$140,000								
Task 3 Develop planning, screening, and evaluation - Develop criteria to evaluate project cost and benefit - Review and finalize criteria	\$ TBD							\$ TBD						
Task 4 Describe water supply reliability opportunities - Identify potential projects - Select projects for reconnaissance level study	\$ TBD								\$ TBD					
Task 5 Develop reconnaissance-level engineering design and operating plan - Characterize potential water supply reliability projects - Evaluate Projects - Prepare finance plan for soft-costs - Prepare implementation plan	\$ TBD									\$ TBD				\$ TBD
Task 6 Plan, design, and build water supply reliability alternatives - 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	\$305,000	\$165,000				\$140,000				\$TBD				\$ TBD

TBD -- To be determined



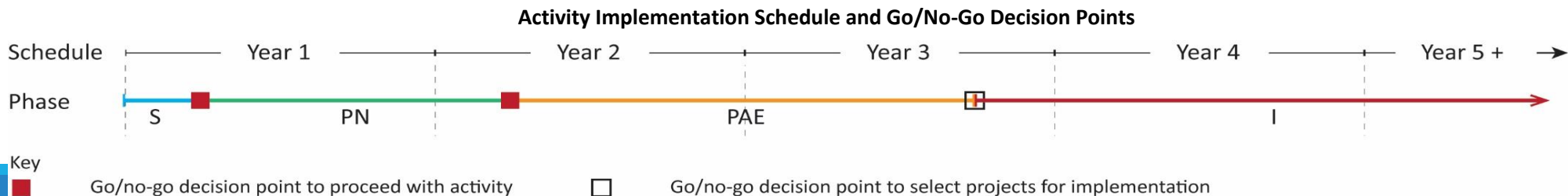
2020 OBMP Update - Activity A:

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

Need and Objectives: The objectives of Activity A are (1) to maximize stormwater capture pursuant to Watermaster’s diversion permits, (2) to promote the long-term balance of recharge and discharge, (3) to ensure sufficient supplemental water recharge capacity for future replenishment, (4) to reduce dependence on imported water by maintaining or enhancing safe yield, (5) to improve water quality, and (6) to ensure a supply of dilution water to comply with recycled water recharge permit requirements. Based on the alignment of the objectives of Activity A with those of the RMPU, Activity A can be accomplished through the existing RMPU process.

Phase	Task	Outcomes	Watermaster Role	Are these outcomes necessary for Watermaster to Administer the Physical Solution or Comply with Other Requirements ?
S	1 – Define objectives and refine scope of work	Consensus on objectives of 2023 RMPU	Convene committee	Yes
PN	2 – Develop planning, screening, and evaluation criteria	New criteria for selecting projects	Technical support role	Yes
PAE	3 – Describe recharge enhancement opportunities	Conceptual design, operating plans, and costs of recharge alternatives	Technical support role	Yes
	4 – Develop reconnaissance-level engineering design and operating plan	Project implementation and financing plan		
I	5 – Plan, design, and construct selected recharge projects	New recharge projects	Technical support role	Yes, to the extent that additional recharge capacity is needed

**Phase Descriptions: S = Scoping PN = Evaluate need for project PAE = Project alternative evaluation I = Implementation*

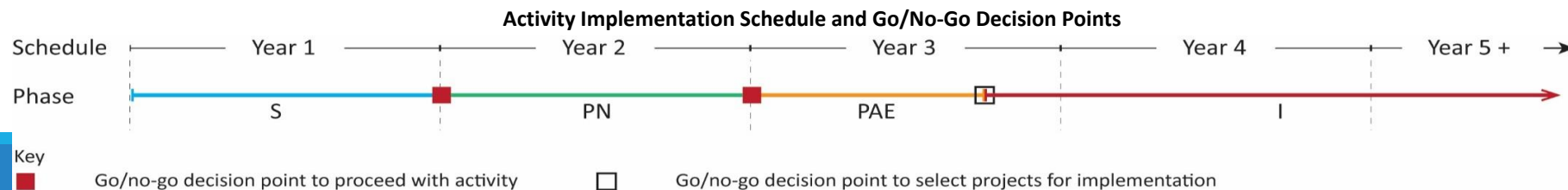




Need and Objectives: The Parties desire to develop and implement “optimized” storage and recovery programs that avoid potential MPI and provide broad benefits, such as increased water-supply reliability, protected or enhanced safe yield, improvements to water quality, and reduced cost for OBMP implementation. The objectives of Activity B are to prepare a Storage and Recovery Master Plan in a collaborative setting that clearly articulates the specific objectives of the parties and the required benefits to be realized from storage and recovery programs. The master plan will assist the parties and their storing partners to select and implement storage and recovery programs that achieve their objectives and the desired benefits.

Phase*	Task	Outcomes	Watermaster Role	Are these outcomes necessary for Watermaster to Administer the Physical Solution or Comply with Other Requirements ?
S	1 – Convene the Storage and Recovery Program Committee, define objectives, and refine scope of work	Consensus on objectives and desired benefits of S&R programs Scope/cost to prepare the Master Plan	Convene committee; ensure that Committee recommendations are consistent with Watermaster governing documents	Yes. While there is no requirement to optimize S&R programs, the Watermaster is required to evaluate S&R programs for potential MPI, compel mitigation, if necessary, and prioritize approval of S&R programs that provide broad mutual benefits to the parties. This is the most efficient process that enables Watermaster to perform this role.
PN	2 – Develop conceptual alternatives for storage and recovery programs at various scales	Conceptual descriptions of various types of S&R recovery programs that achieve the objectives defined in Task 1	Administer meetings; assist in the development and documentation of conceptual alternatives	
PAE	3 – Describe and evaluate reconnaissance-level facility plans and costs for S&R program alternatives	Reconnaissance-level facility plans, operational plans, and costs for various S&R program alternatives	Administer meetings; assist in development of alternatives; groundwater modeling to estimate basin response	
I	4 – Prepare Storage and Recovery Program Master Plan	S&R Program Master Plan that will support S&R program selection, solicitation of storing partners, applications for funding, and Watermaster approvals	Administer meetings; Preparing draft and final master plan	

*Phase Descriptions: S = Scoping PN = Evaluate need for project PAE = Project alternative evaluation I = Implementation





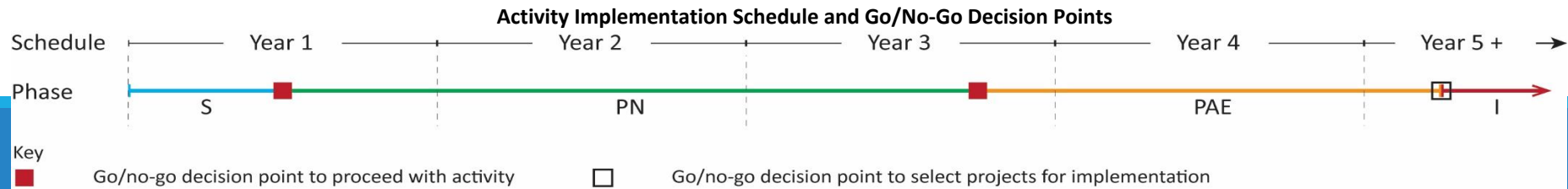
2020 OBMP Update - Activity EF

*Develop and implement a water-quality management plan to address current and future water-quality issues and protect beneficial uses AND
Develop strategic regulatory-compliance solutions that achieve multiple benefits in managing water quality*

Need and Objectives: Groundwater contaminants are present across the Chino Basin, new contaminants are being discovered, and water-quality regulations are evolving and becoming more restrictive. These trends are limiting the beneficial use of groundwater and increasing the cost of the water supply. The objectives of Activity EF are to characterize the water-quality challenges across the Chino Basin and identify the most efficient means to address the water-quality challenges, including the potential for multi-benefit collaborative projects, to ensure that groundwater can be put to beneficial use.

Phase*	Task	Outcomes	Watermaster Role	Are these outcomes necessary for Watermaster to Administer the Physical Solution or Comply with Other Requirements ?
S	1 - Convene the Water Quality Committee, define objectives, and refine scope of work	Mutual understanding of the universe of water quality concerns of parties	Convene committee	Yes
PN	2 - Develop and implement an initial emerging-contaminants monitoring plan	Data	Prepare monitoring plan; collect and compile data	Yes
PN	3 – Perform a water quality assessment and prepare a scope to develop and implement a Groundwater Quality Management Plan	Understanding of scale of problem; scope/cost to evaluate project alternatives; long-term monitoring plan;	Perform characterization	Yes
PAE	4 – Develop planning, screening, and evaluation criteria 5 – Identify and describe potential projects for evaluation 6 – Conduct a reconnaissance-level study for the proposed projects 7 – Prepare the Groundwater Quality Management Plan	Conceptual design and operating plans for project alternatives Understanding of cost to manage Chino Basin groundwater quality with and without collaborative projects Management plan to document project implementation plan and supporting info	Technical support role to evaluate project alternatives and characterize potential for MPI (if necessary) Technical support role to prepare the Groundwater Quality Management Plan	Yes
I	8 – Plan, design, and build water quality management projects	Groundwater quality improvement projects	None	No

*Phase Descriptions: S = Scoping PN = Evaluate need for project PAE = Project alternative evaluation I = Implementation





2020 OBMP Update - Activity D:

Maximize the reuse of recycled water produced by IEUA and others

Need and Objectives: The objective is to maximize the reuse of recycled water produced by the IEUA and other publicly owned treatment works (POTWs) in proximity to the Chino Basin to meet future demands and improve local water-supply reliability, especially during dry periods. Expanded reuse activities could include direct non-potable reuse (landscape irrigation or industrial uses), groundwater recharge (indirect potable reuse), and direct potable reuse. Increasing recycled water reuse is an integral part of the OBMP's goal to enhance water supplies. The direct use of recycled water increases the availability of native and imported waters for higher-priority beneficial uses.

Phase	Task	Outcomes	Watermaster Role	Are these outcomes necessary for Watermaster to Administer the Physical Solution or Comply with Other Requirements ?
S	1 – Convene Recycled Water Projects Committee, define objectives and refine scope of work	Consensus on the objectives for optimizing and maximizing recycled water reuse	Could convene committee, or just serve support role to IEUA	No
PN	2 – Characterize the availability of all recycled water supplies and demands	Understanding of demand and opportunities for increased recycled water reuse	Technical support role to IEUA or other activity lead	No
PAE	3 – Develop planning, screening, and evaluation criteria 4 – Identify and describe potential projects for evaluation 5 – Conduct a reconnaissance-level study for the proposed projects	Conceptual design, operating plans, and costs of reuse projects Characterization of SNMP impacts of reuse projects Project implementation and financing plan	Technical support role to IEUA or other activity lead	No
I	6 – Plan, design, and construct selected projects	New recycled water reuse projects	None	No

*Phase Descriptions: S = Scoping PN = Evaluate need for project PAE = Project alternative evaluation I = Implementation

