ATTACHMENT 3

DRAFT | MARCH 2025

Summary of Proposed Engineering Services and Cost Estimates *Fiscal Year 2025/26*

PREPARED FOR

Chino Basin Watermaster

PREPARED BY

WEST YOST
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Summary of Proposed Engineering Services and Cost Estimates
Fiscal Year 2025/26

EXECUTIVE SUMMARY

This document summarizes West Yost's proposed scope-of-work and cost estimate for Watermaster Engineering Services in fiscal year (FY) 2025/26. For each engineering task in this summary, the following information is provided:

- **Cost Estimate**. This is the estimated cost to complete the task in FY 2025/26, which includes all costs for Watermaster Engineer labor, equipment rentals, laboratory analyses, travel, other subcontractors, etc. Subcontractor costs are passed through with no additional "markup." The cost estimates include costs that will be covered by cost sharing partners (e.g., IEUA) and/or carryover budget from the prior FY. Hence, the cost to the Watermaster Parties in 2025/26 will be less than the costs stated herein for those tasks with cost share and/or carryover funding.
- **Rationale**. This is a description of why the task is being proposed for FY 2025/26, including references to associated regulatory requirements, Court Orders, CEQA requirements, or agreements.
- **Scope**. This is a summary description of the scope of work required to complete the task.
- **Deliverables**. This is a summary of the task deliverables.

There is one new task that is proposed to start in FY 2025/26 which has not been performed in past years. This new task is:

- Prepare a Work Plan to Improve the Chino Basin Groundwater Quality Model - Pending Discussion on Cost Share with IEUA

This summary is accompanied by four tables that describe the cost estimates in more detail and compare the cost estimates to the prior year Watermaster budget:

- **Table 1.** This is a detailed line-item cost estimate for each proposed task. It includes totals for the following:
  - **Total Engineering Cost Estimate**. The total cost to complete the task in 2025/26, including Watermaster Engineer labor, equipment rentals, laboratory analyses, travel, other subcontractors, etc.
  - **IEUA Cost Share**. The amount of Total Engineering Cost Estimate covered by IEUA under cost sharing agreements.
  - **Watermaster Engineering Cost Estimate**. The Total Engineering Cost Estimate minus the IEUA Cost Share.
  - **Expected Watermaster Carryover**. The estimated amount of unspent approved budget for work planned for FY 2024/25 that is now expected to be performed in FY 2025/26.[1]
  - **Proposed Watermaster Budget for Engineering Services 2025/26**. The Watermaster Engineering Cost Estimate minus the Expected Carryover. This is the estimated costs that would be assessed to the Watermaster parties for 2025/26.

[1] The expected Watermaster carryover does not include the portion of carryover that IEUA would be responsible for in a cost-share; for cost-share projects that assume carryover, IEUA's portion of carryover is included in the "IEUA Cost Share" column.

- **Table 2.** This table compares the Watermaster Engineering Cost Estimates for FY 2025/26 versus 2024/25.
- **Table 3**. This table explains the variances between the Watermaster Engineering Cost Estimates for FY 2025/26 versus 2024/25 for the tasks with variances greater than $15,000.
- **Table 4.** This table breaks down the Total Engineering Cost Estimate into the various expense categories of labor and other direct costs.

The total proposed cost estimate for engineering services in FY 2025/26 is about $3,157,650. Cost sharing contributions by IEUA (~$157,248) reduces the estimated costs for Watermaster engineering services to about $3,000,403, which is about $669,580 less than the Watermaster engineering costs for FY 2024/25. Currently, it is estimated that about $96,000 of the Watermaster engineering costs will be funded via carryover funds from the FY 2024/25 budget.

8306, 8506, 8406, 6206, 6306 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Pool, Advisory, Watermaster Meetings

	Cost Estimate
Consultant Labor	$110,808
Other Direct Costs	$2,313
Total	**$113,121**

Rationale

The Watermaster General Manager and/or the Watermaster Board may direct West Yost to prepare for and attend the following meetings:

- Watermaster Pool meetings (Appropriative, Agricultural, and Overlying Non-Agricultural)
- Watermaster Advisory Committee meetings
- Watermaster Board meetings

Watermaster meetings are assumed to occur in all months except December.

Scope of Work

For each meeting, West Yost will prepare engineering updates with supporting maps, charts, tables, handouts, and PowerPoint presentations, as appropriate. West Yost shall also participate in conference calls with Watermaster's General Manager and staff to prepare for the meetings and may be asked by Watermaster staff to help prepare staff reports for business items.

Deliverables

West Yost will deliver the following to Watermaster:

- Maps, charts, tables, handouts, and PowerPoint presentations prepared by West Yost for the meetings.
- Other as-requested deliverables.

6901.8, 5901.8 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Other General Meetings as Requested

	Cost Estimate
Consultant Labor	$75,968
Other Direct Costs	$1,850
Total	**$77,818**

Rationale

The Watermaster General Manager and/or the Watermaster Board may direct West Yost to prepare for and attend the following meetings:

- Other general meetings as requested by Watermaster's General Manager or Board.
- Coordination conference calls with Watermaster's General Manager and staff.

Work on this task will be performed only upon request by Watermaster's General Manager or the Board.

Scope of Work

For each meeting, West Yost will prepare supporting maps, charts, tables, handouts, and PowerPoint presentations, as appropriate, and may participate in conference calls to coordinate with Watermaster staff prior to or following the meetings.

Deliverables

West Yost will deliver the following to Watermaster:

- Maps, charts, tables, handouts, and PowerPoint presentations prepared by West Yost for the meetings.
- Other as-requested deliverables.

5935 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Material Physical Injury Requests, Others

	Cost Estimate
Consultant Labor	$41,668
Other Direct Costs	$0
Total	**$41,668**

Rationale

At the direction of the Watermaster General Manager, West Yost will conduct a material physical injury analysis for each transfer application, storage application, and recharge application, or as otherwise directed by Watermaster and pursuant to the Peace Agreement and the Rules and Regulations. Specifically, Article 10 of the Watermaster Rules and Regulations (paragraph 10.10) requires that:

> *"[…] Watermaster prepare a written summary and analysis (which will include an analysis of the potential for material physical injury) of the Application and provide the Parties with a copy of the written summary and advanced notice of the date of Watermaster's scheduled consideration and possible action on any pending Applications."*

Per the Peace Agreement (page 8), material physical injury is defined as:

> *"[…] material injury that is attributable to Recharge, Transfer, storage and recovery, management, movement or Production of water or implementation of the OBMP, including, but not limited to, degradation of water quality, liquefaction, land subsidence, increases in pump lift and adverse impacts associated with rising groundwater."*

Scope of Work

This task provides engineering services to assist Watermaster staff in the evaluation of transfer, storage, and recharge applications. Occasionally, Watermaster staff requires engineering services in the evaluation of such transfers. Material physical injury analyses anticipated for FY 2024/25 will cover water transfers among the parties, recharge applications, and storage application, as directed by Watermaster.

Deliverables

The deliverables for this work will be defined by specific Watermaster direction for projects requiring MPI analyses.

5906.71 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Miscellaneous General Manager and Data Requests – from Watermaster Staff

	Cost Estimate
Consultant Labor	$108,824
Other Direct Costs	$300
Total	**$109,124**

Rationale

The Watermaster General Manager and/or Watermaster staff may direct West Yost to perform specific technical analyses and/or respond to miscellaneous data requests related to Chino Basin optimum management. The recommended budget estimate is based on prior years' experience.

Scope of Work

West Yost shall perform the following tasks:

- Perform ad hoc analyses and review of documents requested by the Watermaster General Manager and/or Watermaster staff.
- Fulfill requests from the Watermaster General Manager and/or Watermaster staff, including the preparation of PowerPoint presentations, maps, charts, and technical reports.
- Fulfill requests for hydrologic data, model files, model analyses, PowerPoint presentations, maps, charts, technical reports, etc., as requested by Watermaster staff.

Deliverables

West Yost shall deliver to Watermaster data-request deliverables as well as PowerPoint presentations, maps, charts, and technical reports, as requested.

5906.72 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Miscellaneous Data Requests – from Non-Watermaster Staff, Watermaster Parties, and Non-Watermaster Entities

	Cost Estimate
Consultant Labor	$56,486
Other Direct Costs	$0
Total	**$56,483**

Rationale

The Watermaster General Manager and/or Watermaster staff may direct West Yost to perform specific technical analyses and/or respond to miscellaneous data requests from Watermaster parties, non-Watermaster staff, and non-Watermaster entities. The recommended budget estimate is based on prior years' experience.

Scope of Work

West Yost shall perform the following tasks:

- Perform ad hoc analyses requested by Watermaster parties, non-Watermaster staff, and non-Watermaster entities, as directed by the Watermaster General Manager and/or Watermaster staff.
- Fulfill requests for hydrologic data, model files, model analyses, PowerPoint presentations, maps, charts, technical reports, etc. requested by Watermaster parties, non-Watermaster staff, or non-Watermaster entities, as directed by Watermaster staff.

Deliverables

West Yost shall deliver to Watermaster the data-request deliverables as well as PowerPoint presentations, maps, charts, and technical reports, as requested by the Watermaster General Manager and/or Watermaster staff.

6901.95 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Annual Streamflow Monitoring Report for Water Rights Permit 21225

	Cost Estimate
Consultant Labor	$23,596
Other Direct Costs	$0
Total	**$23,596**

Rationale

This work is required in Watermaster's permit issued by the State Water Resources Control Board (Permit No. 21225).

Scope of Work

This task includes engineering services to prepare a specialized hydrologic assessment of the relative impacts of the diversions of storm water for recharge by Watermaster pursuant to Watermaster's Permit 21225 issued by the State Water Resources Control Board. A report summarizing the analysis is due each year by October 1st. This work involves estimating the discharge to the Santa Ana River from its tributaries that flow across the Chino Basin and where storm water is diverted for recharge. The discharge from these tributaries to the Santa Ana River is estimated with and without the Watermaster diversions for recharge, and the relative changes in discharge are computed. The latest version of the Chino Basin surface water model that was developed for the 2025 Safe Yield Reevaluation will be used for this effort.

Deliverables

West Yost shall deliver the following to Watermaster:

- A letter report entitled, Annual Streamflow Monitoring Report for Water Rights Permit 21225, Fiscal 2023/24, which Watermaster and its attorney will review and forward to the State Water Resources Control Board by October 1, 2023.
- The draft report will be delivered to Watermaster and its Attorney for review and comment by September 15, 2023.
- The final report will be delivered to Watermaster and its Attorney by September 27, 2023.

6901.95 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

SGMA Reporting Requirement for April 1, 2025 WC Section 10720.8 (f).

	Cost Estimate
Consultant Labor	$24,068
Other Direct Costs	$0
Total	**$24,068**

Rationale

The Sustainable Groundwater Management Act (SGMA) has a requirement that the Watermaster or a local agency of an adjudicated basin identified in WC Section 10720.8(a) submit specific data, information, and reports for the previous water year annually to the California Department of Water Resources (DWR) by April 1 of each year. Pursuant to SGMA WC Section 10720.8(f), Watermaster is required to submit:

(A) Groundwater elevation data unless otherwise submitted pursuant to WC Section 10932
(B) Annual aggregated data identifying groundwater extraction
(C) Surface water supply used for or available for use for groundwater recharge or in-lieu use
(D) Total water use
(E) Change in groundwater storage
(F) The annual report submitted to the court

Scope of Work

The reporting period is water year 2024/25. Item (A) has already been submitted for the California Statewide Groundwater Elevation Monitoring (CASGEM) Program, so no further data will be reported pursuant to the SGMA. Items (B) through (D) and (F) will be compiled from the appropriators, the IEUA, and Watermaster. Item (E) is a result from the Chino Basin groundwater model that will be updated with data through September 30, 2025. The change in storage will be estimated from the resulting water budget table for water year 2024/25.

The DWR has implemented an Adjudicated Basin Annual Reporting System, which is an on-line submission system that consists of specialized reporting templates for entering all the required information and provides the capability to upload supporting documents and reports. A Technical Memorandum will be prepared for Watermaster, explicitly documenting the information for Items (A) through (F) that will be populated into the reporting templates for the April 1 submittal.

Deliverables

West Yost shall deliver the following to Watermaster:

- A draft memorandum that documents the information submitted to the DWR Adjudicated Basin Annual Reporting System.
- The draft Memorandum will be submitted to Watermaster in February 2026 for Watermaster review and comment.
- The final Memorandum will be submitted to Watermaster by March 5, 2026 for review and approval by the Watermaster Pools, Advisory Committee, and Board.
- The required information and documents will be submitted to the DWR using the Adjudicated Basin Annual Reporting System by April 1, 2026.

6906 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Project Management

	Cost Estimate
Consultant Labor	$65,810
Other Direct Costs	$0
Total	**$65,810**

Rationale

This task is for routine project management and the preparation of quarterly estimated-cost-at-completion reports.

Scope of Work

West Yost shall perform routine project management services, including:

- Set up and update the Integrated Schedule Budget Management (ISBM) system.
- Prepare, execute, and set up accounting for supplemental notice to proceeds and budget authorizations
- Analyze staffing requirements and make assignments for various tasks.
- Review the schedules of deliverables.
- Prepare monthly budget summary tables.
- Prepare the Estimated Cost at Completion (ECAC) and Earned Value (EV) estimates.
- Prepare quarterly progress reports on progress, schedule, and ECAC for Watermaster staff
- Attend joint Watermaster/West Yost senior staff meetings.
- Attend Watermaster budget workshops.

Deliverables

West Yost shall deliver the following to Watermaster:

- Quarterly summary of costs to date, ECACs, and estimates of progress on a task-by-task basis.
- Monthly budget summary tables.

6906.1 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Watermaster Model Update and Required Demonstrations

	Task 1[2]	Task 2	Total
Consultant Labor	$60,000	$8,176	$68,176
Other Direct Costs	$0	$0	$0
Total	**$60,000**	**$8,176**	**$68,176**

Rationale

Watermaster updated its groundwater models in 2007, 2013, 2020, and 2024. Watermaster applies its groundwater model to estimate net recharge and Safe Yield, to assess the state of hydraulic control, to assist with SGMA compliance, to conduct material physical injury assessments, to assist in the development of a storage framework and Storage Management Plan, and to support the development of TDS and nitrate concentration changes in the basin.

Activities historically performed in this task have included: the assessment of the adequacy of supplemental water recharge capacity pursuant to Section 7.3 of the Peace II Agreement; the evaluation of the balance of recharge and discharge; and the evaluation of the cumulative effects of transfers. Each year since 2012, a technical assessment of the adequacy of supplemental water recharge capacity was completed and reported to the Watermaster pursuant to Section 7.3 of the Peace II Agreement. The evaluation of the balance of recharge and discharge and the cumulative effects of transfers will be required in early FY 2025/26.

The work anticipated for this line item in FY 2025/26 includes the evaluation of the balance of recharge and discharge and the cumulative effect of transfers and the preparation of annual finding of compliance with Section 7.3 of the Peace II Agreement.

Scope of Work

The consultant shall perform the following tasks:

- **Task 1 – Evaluate the Balance of Recharge and Discharge and the Cumulative Effects of Transfers**
  - Task 1.1—Collect, Compile, and Review Data to Update Historical Hydrology and Prepare Annual Estimate of Balance of Recharge and Discharge. The evaluation of the balance of recharge and discharge is a retrospective analysis of the water budgets in each of the five OBMP management zones (MZs) from the period of July 1, 2020 through June 30, 2024. The consultant will collect and/or compile the necessary data to replace the projection data in the 2025 Chino Valley Model (CVM) for this period,[3] including hydrologic data, pumping data, and recharge data.

[2] Task 1 will be funded entirely from carryover funds that were originally budgeted to complete Task 1 in FY 2024/25.

[3] The 2025 CVM includes multiple calibrated realizations that represent plausible sets of parameters that characterize the Basin. Only one calibrated realization will be chosen to use for this study. The 2025 CVM is expected to contain historical hydrologic data through Water Year 2023.

- Task 1.2—Compile the Historical Transfers in the Chino Basin and Determine the Annual Avoided Wet-Water Replenishment. The consultant will use the Watermaster Assessment Packages to calculate the avoided wet-water replenishment by Party by year.
- Task 1.3—Evaluate Basin Response to the Water Replenishment That Would Have Occurred in the Absence of Transfers. In this task, the consultant will create a new scenario that will be identical to the calibration run of the 2025 CVM, with imported water recharge increased to the volume that would have occurred in the absence of transfers for the period of July 1, 2000 through June 30, 2024. This scenario will be simulated and compared to the 2025 CVM calibration run (extended through June 30, 2024 in Task 1.1) and to determine the cumulative effect of transfers on the basin.
- Task 1.4—Prepare Report. In this task, the consultant will document the work in Tasks 1.1 through 1.3.

- **Task 2 Prepare Finding of Substantial Compliance.** The work required for this task includes review and update of planning information, testing the adequacy of existing wet-water recharge capacity to meet future wet-water replenishment obligations, and preparation of a technical memorandum to document substantial compliance as required by Section 7.3 of the Peace II Agreement.

Deliverables

For Task 1, West Yost will prepare a report for Watermaster documenting the evaluation of the balance of recharge and discharge and the cumulative effects of transfers.

For Task 2, West Yost will deliver a technical memorandum to Watermaster documenting the annual finding of substantial compliance.

6901.95 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Compliance with SWRCB Regulations Regarding Measurement and Reporting Diversion of Surface Water (Title 23 Chapters 2.7 and 2.8)

	Cost Estimate
Consultant Labor	$19,168
Other Direct Costs	$0
Total	**$19,168**

Rationale

Watermaster holds three diversion permits, issued by the SWRCB, that provide authorization to Watermaster to divert and recharge storm and dry-weather discharge. Presently, the amount of water diverted is estimated by the IEUA and reported to the Watermaster. Watermaster subsequently reports the amount of water recharged to the SWRCB pursuant to its permits and SWRCB regulations in Title 23, Chapter 2.7.

SB88 was signed into law by Governor Brown on June 24, 2015. Sections 15 through 18 of that law add new measurement and reporting requirements for a substantial number of diverters, including the Chino Basin Watermaster. Pursuant to the regulations, Watermaster must annually report the following in addition to prior reporting requirements:

- Information on the device or method used to calculate the amount of water diverted.
- Water diversion measurement, either direct diversion or diversion to storage, including the type of device(s) used, additional technology used, who installed the device(s), and any alternative method(s) used in measuring water diversion.

Pursuant to the regulations, Watermaster is required to provide a description of its measuring scheme, determine if it meets the specific accuracy requirements provided for in the regulations, and if it can't meet the accuracy requirements, to implement an improved diversion measuring scheme.

Scope of Work

West Yost shall perform the following tasks:

- Task 1.1 – Collect WY 2023 stormwater data from IEUA, including transducer information and stage measurements.
- Task 1.2 – Provide as-needed assistance to Watermaster staff to update the "Water Diversion Measurement" section of progress reports for Watermaster's water rights permits. For one of the permitted points of diversion, modeling is needed to estimate diversions. The latest version of the Chino Basin surface water model that was developed for the 2020 Safe Yield Recalculation will be used for this effort.

Deliverables

West Yost shall deliver the following to Watermaster:

- Estimates of stormwater recharge, including maximum daily diversions by month by permit.
- The "Water Diversion Measurement" section of Watermaster's annual progress reports to the SWRCB.
- Electronic data files required by SWRCB at time of filing.

5945 – OBMP/JUDGMENT ADMIN GENERAL ENGINEERING

Assist Watermaster in Preparing the 48th Annual Report

	Cost Estimate
Consultant Labor	$17,762
Other Direct Costs	$0
Total	**$17,762**

Rationale

This work is required by the Chino Basin Judgment and the Sustainable Groundwater Management Act.

Scope of Work

This task includes support services to assist Watermaster staff in the preparation of the Watermaster's 48th Annual Report documenting Watermaster's activities and water accounting for FY 2024/25. West Yost will work closely with Watermaster staff and their contractor Martin Rauch to provide as-requested support to collect data and prepare content for the Annual Report.

Deliverables

West Yost's deliverables and associated schedule will be defined by Watermaster upon project kick-off in July 2025.

7502, 7505 – PE1: COMPREHENSIVE MONITORING PROGRAM

Groundwater and Surface Water Quality Monitoring Program

	Cost Estimate
Consultant Labor	$234,022
Other Direct Costs	$49,530
Total	**$283,552**

Rationale

The OBMP, Peace Agreements, and Implementation Plan all call for a key-well monitoring program for groundwater quality as part of Program Element 1.[4] The data generated in Program Element 1 are used for the Biennial State of the Basin Report, the Groundwater Model update and calibration, material physical injury assessments, the evaluation of non-point source groundwater contamination and plumes associated with point-source discharge, the evaluation of emerging contaminants in groundwater[5], Hydraulic Control demonstrations, the Triennial Ambient Water Quality Recomputation[6], and evaluation of groundwater/surface water interaction near riparian habitat in the Prado Basin. The groundwater-quality and surface water monitoring programs, as currently implemented, meets the minimum requirements for all the above uses.

The Hydraulic Control Monitoring Program (HCMP)[7] and the Prado Basin Habitat Sustainability Program (PBHSP)[8] are regulatory monitoring programs with groundwater and surface water monitoring components. Data collected for the HCMP and PBHSP are also used for all other basin-wide uses.[9]

[4] OBMP Program Element 1—*Develop and Implement Comprehensive Monitoring Program.*

[5] The Water Quality Management Program (WQMP) that is part of Program Element 6 conducted through the Water Quality Committee (WQC) includes the development and implementation of an Emerging Contaminants Monitoring Plan (EMCP) to collect data to characterize contaminant occurrence in the Chino Basin where data is not available and inform implications of potential water quality regulations on Chino Basin groundwater operations and management. The draft ECMP was developed in February 2024. For efficiency the Watermaster portion of the ECMP sampling will be done during the routine Watermaster monitoring for FY 2024/25 at various monitoring wells and private wells.

[6] The Hydraulic Control demonstrations and the Triennial Ambient Water Quality Recomputation are salt-management requirements of the Basin Plan: http://www.swrcb.ca.gov/santaana/water_issues/programs/basin_plan/docs/chapter5.pdf

[7] The HCMP surface water and groundwater monitoring programs are maximum-benefit requirements are salt-management requirements of the Basin Plan: http://www.swrcb.ca.gov/santaana/water_issues/programs/basin_plan/docs/chapter5.pdf and are more specifically described in 2014 HCMP Work Plan.

[8] Pursuant to Mitigation Measure 4.4-3 in the Peace II CEQA SEIR, the PBHSP adaptive monitoring program includes groundwater and surface water monitoring components to ensure that Peace II Agreement activities to not adversely impact Prado Basin riparian habitat. The PBHSP is an adaptive monitoring program that is implemented under the guidance of the Prado Basin Habitat Sustainability Committee (PBHSC) with an annual process of evaluating results and interpretations of the monitoring data and adjusting the monitoring as needed. In FY 2024/25 the proposed PBHSP groundwater and surface water monitoring includes utilization of 15-minute temperature and specific conductance (EC) data measured in the transducers at the PBHSP monitoring wells, and the collection of field water quality parameters quarterly at four surface water sites along Mill and Chino Creeks. For efficiency, the work to download, process, and upload the 15-minute temperature and EC data at the wells is included with the PBHSP transducers in the Groundwater Level Monitoring Program 7104.3.

[9] Watermaster's groundwater quality monitoring program includes annual sampling at the 21 HCMP monitoring wells and triennial monitoring at the 17 PBHSP wells as part of the basin-wide monitoring program to be used for Watermaster's various purposes and characterization of water quality.

Scope of Work

West Yost shall perform the following tasks:

- Assist Watermaster staff in conducting annual sampling at approximately 28 private wells and 11 monitoring wells between July and October 2025. Samples are sent to Clinical Laboratories for analysis. Sub-tasks include:
  - Annual re-evaluation of wells to sample for the key-well monitoring program.
  - Perform field work to sample a portion of the wells on an as-needed basis.[10]
  - Process, perform quality assurance/quality control (QA/QC), review all field and laboratory data, and upload to HydroDaVE.
- Obtain groundwater-quality and surface water-quality data routinely for about 1,100 wells and 50 surface water sites and from all appropriators and cooperators in and immediately adjacent to the Chino Basin. This includes collecting data from about 30 open investigation clean-up sites in the Chino Basin with data available on the GeoTracker[11] and EnviroStor[12] websites and checking for any new sites on GeoTracker and EnviroStor with confirmed or potential impacts to groundwater quality. All data collected are checked for reasonableness and compiled into HydroDaVE's centralized database. Subtasks include:
  - Place phone calls, send emails, and attend meetings with the water quality staff of appropriators and other cooperating parties.
  - Collect, process, review, and upload hardcopy, spreadsheet, database, and laboratory electronic data deliverables to HydroDaVE.
- Obtain groundwater and surface water quality data for the HCMP. West Yost shall perform the following tasks:
  - Collect and analyze annual groundwater-quality samples from the 21 HCMP monitoring wells, and quarterly groundwater-quality samples from the two USGS National Water-Quality Assessment Program (NAWQA), and two Santa Ana River Water Company (SARWC) wells. Samples are sent to Clinical Laboratories for analysis. Subtasks include:
    - Schedule field work and coordinate with analytical laboratory.
    - Perform field work. Field work follows the SOPs defined in the 2014 HCMP Work Plan.
    - Process, QA/QC, and upload field and laboratory data to HydroDaVE.

[10] An as-needed field budget is provided in the event that Watermaster staff needs assistance in completing the water quality sampling program during the target monitoring period of July 2025 through October 2025. The field work will be performed on an as-needed basis, as directed by Watermaster staff.

[11] http://geotracker.waterboards.ca.gov/

[9] http://www.envirostor.dtsc.ca.gov/public/

  - Collect and analyze quarterly surface-water quality grab samples at two specified surface-water stations on the Santa Ana River. Samples are sent to Clinical Laboratories for analysis. Subtasks include:
    - Schedule field work and coordinate with analytical laboratory.
    - Perform field work. Field work follows the SOPs defined in the 2014 HCMP Work Plan.
    - Process, QA/QC, and upload field and laboratory data to HydroDaVE.
- Collect, compile, review, and upload the following surface water data to HydroDaVE twice per year:
  - Daily discharge data from POTW discharge locations upstream of Prado Dam.
  - Surface water discharge at six USGS gaging stations along the Santa Ana River and tributaries upstream of Prado Dam.
- Collect, review, and upload quarterly surface water quality field parameters for four surface water sites on Chino Creek and Mill Creek for the PBHSP:
  - Perform field work.
  - Process, QA/QC, and upload field data to HydroDaVE.

Deliverables

West Yost shall deliver the following to Watermaster no later than the date or dates indicated:

- All groundwater-quality data from the key well sampling program will be uploaded to HydroDaVE by December 31, 2025.
- All available groundwater-quality data collected from Chino Basin appropriators and cooperators for the January 1, 2025 to June 30, 2025 period will be uploaded to HydroDaVE by October 31, 2025.
- All available groundwater-quality data collected from Chino Basin appropriators and cooperators for the July 1, 2025 to December 31, 2025 period will be uploaded to HydroDaVE by April 30, 2026.
- All annual groundwater-quality data collected at the 21 HCMP monitoring wells, during August 2025 will be uploaded to HydroDaVE by September 30, 2025.
- All quarterly groundwater-quality data collected at the two NAWQA and two SARWC wells during July 2025, October 2025, January 2026, and April 2026, will be uploaded to HydroDaVE by August 31, 2025, November 30, 2025, February 28, 2026, and May 31, 2026, respectively.
- All quarterly surface water-quality data collected at the two Santa Ana River sites and surface water quality field parameters collected at four Chino Creek and Mill Creek sites during July 2025, October 2025, January 2026, and April 2026, will be uploaded to HydroDaVE by August 31, 2025, November 30, 2025, February 28, 2026, and May 31, 2026, respectively.
- All POTW surface water quality and discharge data for POTWs, and discharge data for the USGS gaging stations for January 2025 through September 2025 will be uploaded to HydroDaVE by November 30, 2025, and for October 2025 through December 2025 will be uploaded to HydroDaVE by February 28, 2026.

7104.3, 7104.8, 7104.9 – PE1: COMPREHENSIVE MONITORING PROGRAM

Groundwater-Level Monitoring Program

	Cost Estimate
Consultant Labor	$282,862
Other Direct Costs	$49,060
Total	**$331,922**

Rationale

The OBMP, the Peace Agreements, and the Implementation Plan all call for a key well monitoring program for groundwater levels as part of Program Element 1. The data generated in Program Element 1 are used for the Biennial State of the Basin Report, Hydraulic Control demonstrations, land-subsidence monitoring, Groundwater Model development and recalibration, material physical injury assessments, the periodic assessment of Safe Yield, the estimation of storage change, evaluating the impacts of desalter production on nearby private wells, the California Statewide Groundwater Elevation Monitoring (CASGEM) Program,[13] the Triennial Ambient Water Quality Recomputation, and the monitoring of water levels near riparian habitat in Prado Basin to evaluate potential impacts from Peace II Agreement activities.[14] Hydraulic Control demonstrations and the Triennial Ambient Water Quality Recomputation are required by the Basin Plan.[15] The groundwater-level monitoring program, as currently implemented, meets the minimum requirements for all the above uses.

Scope of Work

West Yost shall perform the following tasks:

- Collect and compile groundwater-level measurements from about 1,200 wells. Of the 1,200 wells, about 140 wells are equipped with transducers that measure water levels every 15-minutes that are visited and downloaded quarterly by West Yost and Watermaster field staff. At about 50 wells groundwater-level measurements are measured by Watermaster staff monthly. At about 1,000 wells in and immediately adjacent to the Chino Basin, groundwater-level measurements are measured by appropriators and cooperators, and the data are collected by West Yost or are provided to West Yost from the Watermaster. All data are checked for reasonableness regarding historical data at the well, converted from depth-to-water to groundwater-level elevation, and compiled into the centralized HydroDaVE database. Sub-tasks include:
- Schedule field work for West Yost field staff.

[13] The California Department of Water Resources (DWR) developed the CASGEM Program in accordance with California State Senate Bill SB 6, which was passed in November 2009. CASGEM is a comprehensive groundwater-elevation monitoring program that utilizes locally implemented monitoring programs to track seasonal and long-term groundwater elevations in the state's alluvial groundwater basins and subbasins, as defined in DWR Bulletin 118. Pursuant to California Water Code Section 10927, Watermaster submitted an application to the DWR in the fall of 2010 to become the monitoring entity for the Chino and Cucamonga Groundwater Subbasins.

[14] Pursuant to Mitigation Measure 4.4-3 in the Peace II CEQA SEIR, monitoring described in the Adaptive Management Plan for the PBHSP is implemented to ensure that Peace II Agreement activities to not adversely impact Prado Basin riparian habitat.

[15] The Hydraulic Control demonstrations and the Triennial Ambient Water Quality Recomputation are salt-management requirements of the Basin Plan: http://www.swrcb.ca.gov/santaana/water_issues/programs/basin_plan/docs/chapter5.pdf

- Perform field work to download and maintain approximately 100 transducers for various monitoring wells in Watermaster's monitoring network. (Field work follows the Standard Operating Procedures [SOPs] defined in the 2014 HCMP Work Plan.)
- Purchase and install replacement transducers and direct-read cables as needed for all wells in the transducer monitoring programs.
- Perform field work on an as-needed basis[16] to download transducer data from 30 wells routinely downloaded by Watermaster staff.
- Review and upload manual groundwater-level measurements collected by Watermaster staff monthly to HydroDaVE.
- Process, review, and upload transducer data downloaded quarterly by West Yost staff into HydroDaVE.
- Process, review, and upload cooperator groundwater-level measurements collected by West Yost to HydroDaVE.
- Review and upload transducer data downloaded quarterly by Watermaster staff, and Appropriative pool water-level measurements collected by Watermaster staff to HydroDaVE.
- Annual re-evaluation of the key well program due to abandoned and destroyed wells.
- Submittal of groundwater-level data collected at 46 wells to the Chino and Cucamonga CASGEM program[17] on a biennial basis (fall and spring).
- Help coordinate and contract subcontractors for as-needed well maintenance and rehabilitation services for wells in the monitoring network.

Deliverables

West Yost shall deliver the following to Watermaster no later than the date or dates indicated:

- All available groundwater-level data collected manually in the field or downloaded from transducers for the period of July 1, 2025 through September 31, 2025 will be uploaded to HydroDaVE by October 15, 2025.
- All available groundwater-level data collected manually in the field or downloaded from transducers for the period of October 1, 2025 through December 31, 2025 will be uploaded to HydroDaVE by January 15, 2026.
- All available groundwater-level data collected manually in the field or downloaded from transducers for the period of January 1, 2026 through March 31, 2026 will be uploaded into HydroDaVE by April 7, 2026.

[16] An as-needed budget is provided in the event that Watermaster staff needs assistance in completing the transducer downloads during the target monitoring period for each quarterly download event. The quarterly download of all wells should be completed during the first month at the beginning of each FY quarter—July 2024; October, 2024; January 2025; and April, 2025. Field work will be performed on an as-needed basis, as directed by Watermaster staff.

[17] Watermaster is the designated Monitoring Entity for the Chino and Cucamonga Basins CASGEM program. CASGEM is a mandated statewide monitoring and reporting program for the entire State of California, per the amended California State Water Code SBx7-6 in November 2009.

- All available groundwater-level data collected manually in the field or downloaded from transducers for the period of April 1, 2026 through June 10, 2026 will be uploaded to HydroDaVE by June 30, 2026.
- All available groundwater-level data collected from appropriators in the Chino Basin for the April 1, 2025 through June 30, 2025 period will be uploaded to HydroDaVE by September 15, 2025.
- All available groundwater-level data collected from appropriators in the Chino Basin for the July 1, 2025 through September 30, 2025 period will be uploaded to HydroDaVE by December 15, 2025.
- All available groundwater-level data collected from appropriators in the Chino Basin for the October 1, 2025 through December 31, 2025 period will be uploaded to HydroDaVE by March 15, 2026.
- All available groundwater-level data collected from appropriators in the Chino Basin for the January 1, 2026 through March 31, 2026 period will be uploaded to HydroDaVE by May 31, 2026.
- The fall 2025 CASGEM data submittals will be provided to the DWR by December 31, 2025. The spring 2026 CASGEM data submittals will be provided to the DWR by June 30, 2026.
- Complete coordination of subcontractors as required to perform as-needed well maintenance and rehabilitation services for wells in the monitoring network.
- Purchase and installation of new replacement transducers and direct-read cables as needed throughout the year for all wells in the transducer monitoring programs.

7402, 7403, 7406, 7408 – PE1: COMPREHENSIVE MONITORING PROGRAM

MZ-1 Ground-Level Monitoring Program

	Cost Estimate
Consultant Labor	$170,923
Other Direct Costs	$174,408
Total	**$345,331**

Rationale

Program Element 4 of the OBMP states that land subsidence and ground fissuring in MZ-1 are not acceptable and, to the extent that the cause is pumping in MZ-1, should be managed to tolerable levels. Watermaster conducts a ground-level monitoring program to support Program Element 4 per the requirements of the Peace Agreement, the subsequently developed and Court-approved Chino Basin Subsidence Management Plan, and the monitoring and mitigation requirements of the Peace II California Environmental Quality Act (CEQA) Supplemental Environmental Impact Report (SEIR).

Scope of Work

West Yost shall perform the following tasks:

- Maintain and replace (if necessary) the existing monitoring equipment at extensometer and well facilities in the MZ-1 Managed Area and the Areas of Subsidence Concern.
- Download, check, and store monitoring data from extensometers, wells, and recharge activities in the MZ-1 Managed Area and the Areas of Subsidence Concern.
- Conduct ground-level surveys across:
  - Northwest MZ-1 Area. A vertical survey is recommended in FY 2025/26 because of the ongoing subsidence that is occurring in Northwest MZ-1 and it will support the development of a subsidence management plan in Northwest MZ-1.
  - Northeast Area. A vertical survey is recommended in FY 2025/26 because of the ongoing subsidence that is occurring in the Northeast Area and because this area has not been surveyed in over five years.
- Conduct InSAR monitoring of ground motion across western Chino Basin from March 2025 to March 2026 using information collected by the TerraSAR-X satellite.
- Conduct InSAR monitoring of ground motion across all of Chino Basin from March 2015 to March 2026 using information collected by the DWR to: (i) understand the spatial distribution and rates of subsidence that may be occurring across the eastern portion of the Chino Basin where TerraSAR-X data is not currently analyzed and (ii) compare against TerraSAR-X data across the western portion of the Basin.

Deliverables

West Yost shall deliver the following to Watermaster no later than the date or dates indicated:

- All ground-level monitoring data, available as of May 1, 2026, will be uploaded into Watermaster's database by June 30, 2026.

7302, 7306 – PE1: COMPREHENSIVE MONITORING PROGRAM

Prado Basin Habitat Monitoring, Data Analysis and Reporting – 50% IEUA Cost Share

	Cost Estimate[18]
Consultant Labor	$155,093
Other Direct Costs	$63,490
Total	**$218,583**

Rationale

Mitigation Measure 4.4-3 of the Peace II CEQA SEIR (Biological Resources/Land Use & Planning) calls for the IEUA, Watermaster, and the Orange County Water District to form the Prado Basin Habitat Sustainability Committee (PBHSC). The purpose of the PBHSC is to ensure that the Peace II Agreement actions will not significantly or adversely impact the Prado Basin riparian habitat. The responsibilities of the PBHSC are to develop and implement an adaptive monitoring program for the Prado Basin Habitat Sustainability Program (PBHSP) and to prepare annual reports that include recommendations for ongoing monitoring and any adaptive management actions required to mitigate any measured or prospective loss of riparian habitat that is attributable to the Peace II Agreement.

Scope of Work

The PBHSP is implemented as described in the Adaptive Management Plan and the recommendations in the 2024 Annual Report. The PBHSP includes the implementation of a monitoring program and the preparation of an annual report. The monitoring program includes monitoring of riparian habitat and all factors that can affect the riparian habitat such as changes in groundwater levels, surface water discharge, climate, and other factors.[19] This work includes the following:

- Collect, compile, and review the following riparian habitat data:
  - High-resolution air photo of the Prado Basin region in July 2025.
  - Landsat remote sensing data in the Prado Basin region over the 2025 water year.
  - Perform field vegetation surveys in the summer of 2025
- Collect, compile, review, and upload the 2025 climatic data to HydroDaVE.
- Analyze data and prepare a draft and final 2025 Annual Report of the PBHSC.
- Prepare a Recommended Scope and Budget of the PBHSP for FY 2026/27.
- Prepare for and participate in PBHSC meetings.

[18] IEUA will cost share 50 percent of this task.

[19] The groundwater and surface water monitoring components of the PBHSP are included with Tasks 7103.3 and 7104.3 because the data collected are also used for basin-wide monitoring efforts such as for the Biennial State of the Basin report, groundwater modeling, demonstration of Hydraulic Control, and the triennial Ambient Groundwater Quality Recomputation.

Deliverables

West Yost shall deliver the following to Watermaster no later than the date or dates indicated:

- All riparian habitat and climatic data through water year 2025 uploaded to HydroDaVE by November 30, 2025.
- High-resolution air photo of the Prado Basin region completed by July 31, 2025.
- Final report and results of the Prado Basin vegetation surveys performed in the summer of 2025.
- A Recommended Scope and Budget memorandum for the PBHSP for FY 2026/27 by March 15, 2026
- Draft Annual Report of the PBHSC by May 10, 2026.
- Final Annual Report of the PBHSC by June 15, 2026.

7202 – PE1: COMPREHENSIVE MONITORING PROGRAM

Recharge and Well Monitoring Program: Review Documents for Chino Basin Recycled Water GW Recharge Program

	Cost Estimate
Consultant Labor	$23,350
Other Direct Costs	$0
Total	**$23,350**

Rationale

The IEUA and Watermaster are required to submit specific reports as part of the Chino Basin Recycled Water Groundwater Recharge Program (RWGRP). The RWGRP is being implemented by the IEUA and Watermaster as co-permittees. Annual reporting is performed pursuant to the requirements of the following orders:

- California Regional Water Quality Control Board, Santa Ana Region. Order No. R8-2007-0039. Water Recycling Requirements for Inland Empire Utilities Agency and Chino Basin Watermaster. Chino Basin Recycled Water Groundwater Recharge Program: Phase I and Phase II Projects, San Bernardino County, June 29, 2007.
- California Regional Water Quality Control Board, Santa Ana Region. Monitoring and Reporting Program No. R8-2007-0039 for Inland Empire Utilities Agency and Chino Basin Watermaster. Chino Basin Recycled Water Groundwater Recharge Program: Phase I and Phase II Projects, San Bernardino County, June 29, 2007.
- California Regional Water Quality Control Board, Santa Ana Region. Order No. R8-2009-0057 Amending Order No. R8-2007-0039 for Inland Empire Utilities Agency and Chino Basin Watermaster. Chino Basin Recycled Water Groundwater Recharge Program: Phase I and Phase II Projects, San Bernardino County, October 23, 2009.
- California Regional Water Quality Control Board, Santa Ana Region. Revised Monitoring and Reporting Program No. R8-2007-0039 for Inland Empire Utilities Agency and Chino Basin Watermaster. Chino Basin Recycled Water.

Watermaster prepares reports pertaining to the HCMP with IEUA review. IEUA prepares reports pertaining to the RWGRP with Watermaster review.[20]

Scope of Work

West Yost will review quarterly and annual reports prepared by the IEUA for the RWGRP as well as other reports prepared by the IEUA pursuant to the recharge permit. West Yost will also review other reports or as needed analyses prepared by IEUA per the direction of the Regional Board and the California Department of Drinking Water (DDW), such as five-year engineering reports, and additional monitoring orders or required analyses to demonstrate compliance. West Yost will provide comments and recommendations to the IEUA through the Watermaster as the co-permittee.

[20] This is a component of the "Bright-Line Agreement" between Watermaster and the IEUA.

Deliverables

West Yost will provide comments on the aforementioned reports and analyses within ten days of their receipt.

5925 – PE1: COMPREHENSIVE MONITORING PROGRAM

Agricultural Production Estimation

	Cost Estimate
Consultant Labor	$11,992
Other Direct Costs	$20,000
Total	**$31,992**

Rationale

The Court's April 28, 2017 order mandates that all water production by Judgment Parties be metered, reported, and included in Watermaster's Assessment Packages, unless excluded. To comply, West Yost collaborated with Watermaster staff from FY 2021/22 to FY 2022/23 to document Watermaster's process. This included verifying that all active wells are metered or, if not, justifying why and describing alternative pumping estimation methods. The documentation tracks each known pumping well's attributes and estimation methods and is updated annually to reflect new, inactive, and unverified wells.

To enhance estimation accuracy, West Yost engaged Land IQ in FY 2021/22 to conduct crop surveys and develop a water duty method for agricultural water use estimation. In FY 2022/23, West Yost refined and documented updated water duty methods for the Agricultural Pool. By FY 2023/24, Watermaster staff implemented several recommendations, including surveying Agricultural Pool wells for power meters as a potential estimation tool. Additionally, Watermaster hired Well Tec Services to inspect, install, and calibrate meters for Agricultural Pool wells over a two-year period.

Efforts will continue into FY 2025/26, with Watermaster staff implementing a refined water duty method for non-minimal producing wells lacking metered and reported production. Depending on the success of the water duty method and the pace of the meter installations, Watermaster and West Yost will consider updating Land IQ's scope and future contract.

Scope of Work

In FY 2025/26, West Yost will continue to assist Watermaster staff in the development of new information and collection of data from Watermaster parties, Land IQ, and other sources required to estimate Agricultural Pool parties' pumping to implement the water duty method documented in FY 2022/23. This will involve meetings, as-needed consulting, and coordination with Land IQ to implement the water duty estimating procedure, and review of Watermaster staff pumping estimates. West Yost will also provide as-requested support to Watermaster staff to facilitate the installation and calibration of meters. The scope of this task does not include the data collection review meetings that will be conducted as part of Watermaster's work to implement the April 28, 2017 Court Order.

Deliverables

West Yost will provide guidance and support to Watermaster staff on implementing the water duty computing procedure, attend meetings, reviewing Watermaster staff pumping estimates and meter calibration information as they are produced, and prepare either written or oral comments as directed by Watermaster staff. West Yost's deliverables for as-need requests will be determined with each request.

5965 – PE1: COMPREHENSIVE MONITORING PROGRAM

Support for Implementation of Improved Data Collection and Development of Data Visualization

	Cost Estimate
Consultant Labor	$17,302
Other Direct Costs	$0
Total	**$17,302**

Rationale

Watermaster collects and manages multiple datasets from the Watermaster Parties (Parties) and the IEUA to support the management of the Chino Basin pursuant to the 1978 Judgement, the ongoing implementation of the OBMP, and the regulatory requirements of State and local agencies. Additionally, the IEUA requests and collects analogous datasets from some of the Parties located within IEUA's service area. As such, the Parties receive multiple requests for duplicate data and information, and the datasets collected separately by Watermaster and the IEUA can contain discrepancies.

In FY 2019/20, Watermaster requested West Yost to develop a recommendation for an improved data collection and management process to eliminate duplicate data requests, avoid discrepancies between collected datasets, and create a centralized location for Watermaster and IEUA to access the data. The recommended process included a centralized portal and database where data are collected and managed by Watermaster monthly or annually using data templates customized for each Party. IEUA would have access to the portal and database to download and review information on its member agencies. From FY 2020/21 through 2023/24, Watermaster began the development and implementation of the improved process by developing an online Data Portal for data collection and management, developing data templates for Parties to upload monthly data (production, water levels, water supply), working with Jurupa Community Services District to beta test the Data Portal, and coordinating with the California Data Collaborative to advance the Data Portal.

Watermaster plans to launch the Data Portal in FY 2024/26. During this period, West Yost will continue to provide support to Watermaster including as needed requests with the launch of the Data Portal and data management.

Scope of Work

West Yost will provide as needed support to Watermaster staff for the continued development and implementation of the Data Portal and data collection process, including development and review of data-collection templates, provide solutions to potential issues, and assist in describing the new process to the Parties.

Deliverables

The deliverables and associated schedule will be defined by Watermaster staff upon task kick-off.

7202.2 – PE2: COMPREHENSIVE RECHARGE PROGRAM

General Engineering Services

	Cost Estimate[21]
Consultant Labor	$180,896
Other Direct Costs	$600
Total	**$181,496**

Rationale

Watermaster and the IEUA began implementing the 2013 Amendment to the 2010 Recharge Master Plan (RMPU) in FY 2014/15. The services anticipated in FY 2024/25 include technical support (numerical model simulations, hydraulic calculations, project refinement, conceptual integrity review, etc.) to assist Watermaster and the IEUA in the start-up of the 2013 RMPU projects and evaluate non-2013 RMPU projects, monthly meetings with IEUA and Watermaster staff to review the progress of the RMPU projects, and supporting the implementation of the 2023 RMPU. At Watermaster's request, West Yost will attend quarterly GRCC and RIPComm meetings.

Scope of Work

- Attend GRCC, RIPComm and other meetings with Watermaster and IEUA staffs.
- Support the implementation of the 2023 RMPU, including:
  - Perform as-requested technical support for the start-up of the 2013 RMPU projects
  - Collect MS4 project implementation data from the Parties
  - Annually review the time and effort involved in the collection of information on MS4 project implementation and reassess the value this effort provides
- Support the implementation of the 2023 RMPU, including:
  - Develop a plan to collaborate with MS4 permittees to ensure MS4-compliance projects prioritize recharge
  - Refine and implement of the Renewal and Replacement (R&R) Plan including: sharing updated R&R forecasts with Watermsater to obtain feedback and confirm assumptions, meeting with all recharge facilities owners to review assets in 10-year R&R forecast and identify needs for condition assessments, and develop a work plan for conducting condition assessments and other work identified through collaboration with Watermaster.

Deliverables

West Yost will develop an R&R work plan for conducting condition assessments and other work identified through collaboration with Watermaster.

[21] Carryover funds of will partially fund the completion of this task.

7303 – PE3/5: WATER SUPPLY PLAN – DESALTERS

Engineering Services

	Cost Estimate
Consultant Labor	$21,080
Other Direct Costs	$0
Total	**$21,080**

Rationale

The 2004 Basin Plan Amendment approved by the Regional Board and the State Water Resources Control Board established the "maximum benefit" objectives and established certain milestones that must be achieved by Watermaster and the IEUA. To demonstrate compliance with the Regional Board order, Watermaster and the IEUA agreed to achieve Hydraulic Control. The well fields of the Chino Basin Desalter Authority (CDA) are critical to the achievement and maintenance of Hydraulic Control and the demonstration of maximum benefit. The CDA periodically requests from the Watermaster technical assistance, data, information, and attendance at meetings with regulators to support desalter expansion and operations, and the development and implementation of a monitoring and reporting plan for the CDA clean-up project funded by Prop 1 Grant Agreement No. D1712507.

Scope of Work

West Yost shall perform the following tasks at the discretion of the Watermaster General Manager:

- Review and prepare comments on CDA status reports.
- Perform ad hoc analyses requested by the Watermaster General Manager or the CDA.
- Fulfill requests for hydrologic data, model files, model analyses, PowerPoint presentations, maps, charts, technical reports, etc., as requested by the CDA or its consultants.
- Attend meetings and conference calls, as requested by the CDA or its consultants.

Deliverables

West Yost shall deliver the following, at the discretion of the Watermaster General Manager:

- Written comments on the CDA status reports, as requested by the Watermaster general manager.
- PowerPoint presentations, maps, charts, model files, data, technical reports, and recommendations as requested by the CDA.
- Written summaries of meetings.

7402 – PE4: MANAGEMENT ZONE STRATEGIES

MZ-1: Data Analyses, Reports, Meetings, and Administration

	Cost Estimate
Consultant Labor	$142,164
Other Direct Costs	$10,395
Total	**$152,559**

Rationale

Program Element 4 of the OBMP states that land subsidence and ground fissuring in MZ-1 are not acceptable and, to the extent that the cause is pumping, should be managed to tolerable levels. Watermaster conducts a ground-motion monitoring program to support Program Element 4 per the requirements of the Peace Agreement, the subsequently developed Court-approved MZ-1 Subsidence Management Plan (MZ-1 Plan) and its revisions (2015 Chino Basin Subsidence Management Plan), and the monitoring and mitigation requirements of the Peace II CEQA SEIR. The 2015 Chino Basin Subsidence Management Plan calls for the annual evaluation of data derived from the monitoring program and revisions to the Subsidence Management Plan and/or the monitoring program if necessary.

Scope of Work

West Yost shall perform the following tasks:

- Prepare the draft FY 2024/25 Annual Report for the Ground Level Monitoring Program (GLMP).
- Finalize the FY 2024/25 Annual Report for the GLMP based on comments received from the Ground Level Monitoring Committee (GLMC).
- Analyze all data collected during FY 2025/26 under the GLMP to support the preparation of the FY 2025/26 Annual Report for the GLMP. These data include groundwater levels, groundwater production, aquifer recharge, aquifer-system deformation, tectonic deformation, pumping test results, ground-level surveys, horizontal strain, and InSAR.
- Conduct meetings with the GLMC to review the data and analyses and develop a list of potential activities and cost estimates for FY 2026/27.

Deliverables

West Yost will deliver the following to Watermaster no later than the date or dates indicated:

- The FY 2024/25 Annual Report for the GLMP by November 1, 2025, featuring charts and maps of monitoring data, conclusions regarding the protective nature of the Subsidence Management Plan, the Watermaster-approved activities for the next fiscal year (FY 2025/26), and the revised Subsidence Management Plan, if revisions are necessary.
- Recommended scope of services and budget for the GLMP in FY 2026/27 by April 1, 2026 to support the Watermaster's budgeting process.

7402.1 – PE4: MANAGEMENT ZONE STRATEGIES

MZ-1: Develop a Subsidence Management Plan for Northwest MZ-1

	Cost Estimate
Consultant Labor	$191,128
Other Direct Costs	$50,000
Total	**$241,128**

Rationale

The MZ-1 Subsidence Management Plan (MZ-1 Plan) states that if data from existing monitoring efforts in the Areas of Subsidence Concern indicate the potential for adverse impacts due to subsidence, Watermaster will revise the MZ-1 Plan in an attempt to avoid adverse impacts. Land subsidence in Northwest MZ-1 was first identified as a concern in the MZ-1 Summary Report (2006) and in the MZ-1 Plan (2007). Since then, Watermaster has been monitoring subsidence in this area via InSAR, leveling surveys, and groundwater-levels with pressure transducers at selected wells. Of particular concern, subsidence in Northwest MZ-1 has occurred differentially across the San Jose Fault—the same pattern of differential subsidence that occurred in the MZ1 Managed Area during the time of ground fissuring. Watermaster, consistent with input from the Ground Level Monitoring Committee (GLMC), determined that the MZ-1 Plan needs to be updated to include a *Subsidence Management Plan for Northwest MZ-1* with the long-term objective of minimizing or abating the occurrence of the differential land subsidence.

Developing a Subsidence Management Plan for Northwest MZ-1 is a multi-year effort. The GLMC oversees a work plan[22] to execute this effort. The scope of work below describes the next year of the work plan.

Scope of Work

West Yost shall perform the following tasks to implement the work plan to develop a Subsidence Management Plan for Northwest MZ-1:

- **Monitoring**. The established monitoring program of piezometric levels and pumping at wells in Northwest MZ 1 will continue through various techniques, including: (i) SCADA based monitoring by the Monte Vista Water District; (ii) monitoring of piezometric levels via sonar; (iii) monitoring of piezometric levels via pressure transducers at City of Pomona production wells; and (iv) manual measurements of piezometric levels. These data are collected under the Watermaster's groundwater-level monitoring program but are analyzed under this task. Charts and data graphics of pumping, piezometric levels, and aquifer system deformation will be updated every three months, which will improve the understanding of the hydrogeology in Northwest MZ 1, will be used to develop the Subsidence Management Plan for Northwest MZ 1, and in the future, will be used to adapt the Chino Basin Subsidence Management Plan, as appropriate.
- **Refurbish PX and Add Telemetry**. The Watermaster Engineer has previously reported that the PX monitoring facility is not recording accurate extensometer data. The reasons for the inaccuracies could include, but not limited to, incorrect arrangement of the extensometer cables within the well casings; incorrect counterweights on the extensometer cables;

[22] CBWM. 2015. Workplan to Develop a Subsidence Management Plan for the Northwest MZ-1 Area.

malfunctioning linear potentiometers and/or data loggers; and/or other unknown factors. For FY 2025/26, this task includes a recommendation to refurbish the PX and its monitoring equipment and add telemetry to facilitate real-time observation of the collected data. This effort will accelerate potential improvements by allowing the Watermaster Engineer to rapidly assess the effects of any adjustments made to the PX to improve its accuracy. The cost estimate to refurbish the PX and add telemetry is about $138,000.

- **Refine and Evaluate Subsidence-Management Alternatives.** During 2024/25, the Watermaster is conducting the 2025 Safe Yield Reevaluation (2025 SYR), which involves the development and evaluation of multiple projection scenarios of future hydrology, pumping, managed recharge, and use of managed storage in the Chino Basin. These projection scenarios are being simulated with an updated Chino Valley Model (CVM). The CVM results are being used to determine a tentative Safe Yield, which will be evaluated for MPI and then used to evaluate the current Safe Yield of the Chino Basin. The evaluation of MPI associated with land subsidence in Northwest MZ-1 is being performed using the CVM results, which will then be the input data for the 1D Models at PX and MVWD-28 to predict the potential for future subsidence associated with the Safe Yield.

  Based on the outcomes of the 2025 SYR, the Watermaster Engineer may recommend that additional SMAs be developed and evaluated with the CVM and 1D Models to generate the necessary information to:

  1. Finalize "guidance criteria" for the Subsidence Management Plan for Northwest MZ-1.
  2. Evaluate the minimum recharge quantity of supplemental water in MZ-1, as required by the Peace II Agreement.

  To perform this analysis, the Watermaster Engineer will propose up to two (2) additional SMAs for evaluation with the CVM and the 1D Models. A draft TM will be prepared and distributed to the GLMC that describes the assumptions of the SMA(s), including the groundwater production and replenishment/recharge plans of the Chino Basin parties. A GLMC meeting will be held to review the recommended SMA(s) and to receive feedback on the TM. The verbal and written feedback from the GLMC will be used to finalize the SMA(s).

  Then, the CVM and 1D Models will be used to evaluate the potential future subsidence in Northwest MZ-1 under the SMAs. Again, the objective of this task is to recommend a final "guidance criteria" for Northwest MZ-1 and evaluate the minimum recharge quantity of supplemental water in MZ-1, as required by the Peace II Agreement. The model results, interpretations, and recommendations will be documented in a draft TM and distributed to the GLMC. A GLMC meeting will be held to review the draft TM and receive GLMC feedback. The verbal and written feedback from the GLMC will be used to finalize the TM. The final TM and its recommendations will be shared with all Watermaster Parties through the monthly Pool, Advisory Committee, and Board meetings.

Deliverables

West Yost shall deliver the following to Watermaster no later than the date or dates indicated:

- Draft and final technical memoranda on: (i) descriptions of the SMA(s), including the groundwater production and replenishment/recharge plans of the Chino Basin parties and (ii) the CVM and 1D model results, interpretations, and recommendations.

7502 – PE6/7: COOPERATIVE EFFORTS/SALT MANAGEMENT

Consulting services for water quality under PE6/7

	Cost Estimate[23]
Consultant Labor	$208,828
Other Direct Costs	$1,700
Total	**$210,528**

Rationale

In the Judgment, Watermaster is provided with discretionary powers to address water quality issues in the basin: "Watermaster, with the advice of the Advisory and Pool Committees, is granted discretionary powers in order to develop an optimum basin management program for Chino Basin, including both water quantity and quality considerations." In the Implementation Plan of the Peace Agreement, Watermaster committed to certain responsibilities under Program Elements 6 and 7.

Program Element 6 - Develop and Implement Cooperative Programs with the Regional Board and Other Agencies to Improve Basin Management. Pursuant to Program Element 6, Watermaster has committed resources to managing water quality contaminants as follows:

- Identify water-quality anomalies through monitoring and analysis.
- Assisting the Santa Ana Water Board in determining sources of the water quality anomalies.
- Establishing priorities for clean-up jointly with the Regional Board; and seeking funding from outside sources to accelerate detection and cleanup efforts.
- Identifying opportunities to remove organic contaminants through regional groundwater treatment projects in the southern half of the Basin; and collaborating with the Chino Desalter Authority to implement such solutions.
- Conducting investigations to assist the Santa Ana Water Board in accomplishing mutually beneficial objectives.

Much of the work listed above was started by the Chino Basin Water Quality Committee (WQC) from 2003 through 2010. Since 2010, Watermaster has supported ongoing monitoring and analysis to ensure the efforts to manage water quality contamination under PE6 are achieving the intended outcomes and identify any outcomes that may be of concern. This primarily involves analyzing water quality data to assess the movement of identified plumes in the Basin, but also includes as-needed work to support the Regional Board or others in assessing groundwater quality conditions in and around the plumes.

Program Element 7 – Salt Management Program. Pursuant to Program Element 7, the Watermaster and IEUA have been implementing the Chino Basin maximum-benefit salt and nutrient management plan (Maximum Benefit SNMP) since 2004. Implementation of the Maximum Benefit SNMP is a regulatory requirement defined in the Santa Ana River Basin[24] (Basin Plan). The Maximum Benefit SNMP and the associated management commitments (Maximum Benefit Commitments) were developed to enable maximum beneficial use of recycled water in the Chino Basin. Watermaster and IEUA are required to

[23] Includes $10,000 of expected carryover from FY 2024/25.

[24] http://www.swrcb.ca.gov/santaana/water_issues/programs/basin_plan/docs/chapter5.pdf

implement the Maximum Benefit Commitments in accordance with the scheduled defined in Table 5-8a of the Basin Plan. If the Regional Board determines that the Maximum Benefit Commitments are not being implemented in accordance with Table 5-8a, then maximum benefit is not demonstrated, and the 'antidegradation' TDS and nitrate-nitrogen (nitrate) objectives for the Chino 1, 2, and 3 and Cucamonga groundwater management zones (GMZs) would apply. In this situation, the Regional Board would require that Watermaster and IEUA mitigate the effects of TDS and nitrate discharges to these GMZs that took place in excess of the antidegradation objectives under the maximum benefit objectives retroactively to January 2004. In other words, all salt loading to the Basin that has occurred to the Chino Basin from recycled water use and imported water recharge would have to be offset. The Maximum Benefit Commitments include:

1. The implementation of a surface-water monitoring program.
2. The implementation of a groundwater monitoring program.
3. The expansion of the Chino-I Desalter to a capacity of 10 million gallons per day (mgd) and the construction of the Chino-II Desalter with a design capacity of 10 mgd.
4. The additional expansion of desalter capacity (to 40 mgd) pursuant to the OBMP and the Peace Agreement, the timing for which is tied to the IEUA's agency-wide effluent concentration)[25]
5. The completion of the groundwater recharge facilities included in the 2001 Watermaster Recharge Master Plan.
6. The management of recycled water quality to ensure that the IEUA agency-wide, 12-month running average volume-weighted effluent TDS concentration does not equal or exceed 550 mgl and the TIN concentration does not equal or exceed 8 mgl.
7. The management of basin-wide, volume-weighted TDS and nitrate concentrations in artificial recharge to less than or equal to the maximum-benefit objectives on a five-year volume-weighted basis.
8. The achievement and maintenance of the "hydraulic control" of groundwater outflow from the Chino Basin, specifically from the Chino-North GMZ, in order to protect Santa Ana River water quality and downstream beneficial uses.
9. The determination of ambient TDS and nitrate concentrations of Chino and Cucamonga GMZs every five years.

The majority of the ongoing work to comply with the nine commitments is performed under other program elements, or by IEUA and the CDA.

To demonstrate compliance, Watermaster prepares the Maximum Benefit Annual Report. The report describes the status of compliance with each of the nine maximum benefit commitments defined in the Basin Plan. The annual report is due to the Regional Board by April 15th of each year.

[25] The expansion to provide an additional 20 mgd of desalter pumping capacity was initially required to occur when the 12-month running average for the IEUA agency-wide effluent TDS concentration exceeded 545 mgl for three consecutive months. The expansion has occurred even though this water quality condition has never been triggered and has instead been driven by the implementation of the Peace II Agreement and achieving hydraulic control.

Additionally, as part of the Basin Plan amendment (see below description for task 7510), Watermaster is required to (1) update the monitoring work plan for the Maximum Benefit SNMP, and (2) prepare a work plan to improve the Chino Basin Groundwater Quality Model. The needs to update the monitoring work plan and improve the Chino Basin Groundwater Quality Model were identified during the technical work to support the Basin Plan amendment. The monitoring work plan update is also required by the Regional Board to address updated requirements of the region-wide SNMP in the Basin Plan to address data gaps. Watermaster initiated the effort and will submit the updated monitoring work plan (hereafter, 2025 Maximum Benefit Monitoring Program Work Plan) to the Regional Board in FY 2024/25. For FY 2025/26, the goal is to address inputs from the Regional Board and update the 2025 Maximum Benefit Monitoring Program Work Plan by December 2025, which is the regulatory deadline to address the requirements of the region-wide SNMP.

The objectives of this task are to continue to coordinate with the Regional Water and other agencies with the management of basin groundwater quality, prepare the Maximum Benefit Annual Report, continue to update the monitoring work plan, prepare a work plan to improve the Chino Basin Groundwater Quality Model, and provide other as-needed support on Maximum Benefit SNMP implementation or compliance.

Scope of Work

For FY 2025/26, West Yost shall perform the following tasks:

- Consulting for Program Element 6 to continue efforts to track identified contaminant plumes in the Chino Basin.
  - South Archibald Plume and Chino Airport Plume. Subtasks include:
    - Prepare semi-annual plume status reports for the Watermaster Pools, Advisory Committee, and Board meetings.
    - Assist Watermaster with coordination and negotiation with the plume responsible parties and Regional Board.
    - Provide technical oversight and review of plume investigation and remediation reports.
    - Prepare as-requested technical analyses, such as analyze groundwater-elevation and quality data, develop revised VOC plume maps, and/or perform groundwater model runs to demonstrate the capture of the plume by the desalter well fields.
  - Other point sources of concern. Other point sources of concern include but are not limited to, the General Electric Flatiron Facility, General Electric Test Cell Facility, Rialto-Colton perchlorate plume, the Alumax Recycling Facility, Kaiser Steel Mill, Milliken Landfill, and the Stringfellow site. Subtasks could include:
    - Provide technical oversight and review of investigations and remediation reports.
    - Prepare annual plume status report for the Watermaster Pools, Advisory Committee, and Board meetings.
    - Prepare as-requested technical analyses, such as analyze groundwater-elevation and quality data, review potential impacts to Chino Basin water quality, and/or develop revised plume delineations.
- Support for implementation of Program Element 7
  - Prepare the 2025 Maximum Benefit Annual Report. This includes:

- Analyze and interpret the data and compare with metrics. All data required for reporting in the 2025 Maximum Benefit Annual Report shall be analyzed by West Yost and used to support the demonstration of compliance with the Maximum-Benefit commitments contained in the Basin Plan.
- Reporting. West Yost shall prepare a draft 2025 Maximum Benefit Annual Report. This report will be submitted to Watermaster and the IEUA for review. Comments will be incorporated, and West Yost shall prepare the final 2025 Maximum Benefit Annual Report for submittal to the Regional Board. West Yost will respond to comments from the Regional Board and other stakeholders, as necessary.
- Ad-hoc meetings. Prepare for and attend meetings with Watermaster, IEUA, and/or Regional Board staff, as requested, to present the draft and final 2025 Maximum Benefit Annual Reports.

— Continue to prepare the 2025 Maximum Benefit Monitoring Program Work Plan, which includes:

- Update monitoring work plan based on the Regional Board comments
- Coordinate, as needed, with the Regional Board to ensure acceptance for the workplan.

— Prepare a Work Plan to Improve the Chino Basin Groundwater Quality Model

- Conduct research on how to improve model assumption on fate and transport of TDS and nitrate in the vadose zone
- Expand the historical period to enable model calibration
- Build tools to enable efficient and cost-effective simulation of future conditions
- Update groundwater flow model to the latest version from the Safe Yield investigations
- Perform uncertainty analysis
- Coordinate with the Regional Board to present preliminary findings and gather inputs

— As-needed support for implementation of PE-6 and PE-7:

- Prepare as-requested technical analyses
- Prepare for and attend as-requested meetings with the Regional Board and others

Deliverables

West Yost will deliver the following to Watermaster:

- Semi-annual status reports for the Archibald and Chino Airport plumes in October 2025 and April 2026.
- Annual status reports for the remaining identified plumes in October 2025.
- Draft and final 2025 Maximum Benefit Annual Report by April 2026.
- Updated 2025 2025 Maximum Benefit Monitoring Program Work by December 2025.
- Work Plan to Improve the Chino Basin Groundwater Quality Model by March 2026.
- Other as-needed deliverables

7510 – PE6/7: COOPERATIVE EFFORTS/SALT MANAGEMENT

Update IEUA's Recycled Water Permits/Maximum Benefit Salinity Management Plan for the Chino Basin – IEUA Cost Share

	Cost Estimate
Consultant Labor	$15,444
Other Direct Costs	$3,600
Total	**$19,044**

Rationale

In 2004, the Regional Board amended the Basin Plan to incorporate the Maximum Benefit SNMP for the Chino Basin to incorporate numerically higher, maximum-benefit-based TDS and nitrate objectives for the Chino-North groundwater management zone. The maximum benefit objectives created assimilative capacity and enables the cost-efficient, maximum reuse of recycled water for irrigation and recharge. The SNMP includes nine Maximum Benefit Commitments that Watermaster and IEUA must implement to obtain continued access to assimilative capacity.

The Chino Basin Maximum Benefit SNMP and related permits establish TDS and total inorganic nitrogen (TIN) limits for discharge and reuse of IEUA's recycled water within the Chino Basin. The respective limits for TDS and TIN are 550 mgl and 8 mgl. Compliance is measured as the 12-month, flow-weighted running average concentration of the IEUA agency-wide effluent. Pursuant to Maximum Benefit Commitment No. 6, Watermaster and IEUA are required to prepare and implement a plan and schedule to improve effluent water quality and achieve compliance with the effluent compliance metrics when the 12-month flow-weighted running average TDS or TIN equals or exceeds the action limits of 545 mgl TDS for three consecutive months or 8 mgl TIN for any one month.

In 2015, the 12-month running average TDS concentration of the IEUA recycled water reached a historical high of 534 mg/L, which was only 11 below the action limit, for three consecutive months. Although the TDS concentration declined from the 2015 peak before exceeding the action limit, it was an important indicator that the TDS concentration of recycled water is likely to approach or exceed the limit and trigger the planning for recycled water quality improvements during the next prolonged dry period. Given the potential cost of implementing recycled water quality improvements for what might only be short-term exceedances of the action limit based on the12-month flow-weighted concentration, the IEUA and Watermaster petitioned the Regional Board to modifying the recycled water permits and the Basin Plan to allow for a longer-term averaging period for TDS concentrations.

Beginning in 2017, to obtain approval from the Regional Board for the Basin Plan modifications, and any associated permit modifications, the IEUA and Watermaster began a detailed evaluation of the TDS and nitrate concentration impacts to Chino Basin by developing the 2020 Chino Basin Water Quality Model. The technical work was completed in December 2021 and the results were used to develop a proposed regulatory compliance plan. A Regulatory Compliance Proposal was completed and delivered to the Santa Ana Water Board in March 2022. The Santa Ana Water Board staff approved the Regulatory Compliance Proposal in July 2022 and requested that Watermaster and IEUA partner with the Jurupa Community Services District (JCSD) who had also completed a regulatory compliance proposal in 2022 that would also require amendments to the Chino Basin Maximum Benefit SNMP in Basin Plan. The extra costs to combine the Basin Plan efforts into one amendment are being covered directly by the JCSD.

Since the approval of the Regulatory Compliance Proposal in 2022, Watermaster and IEUA have been working with the Regional Board staff to prepare documents to support the Basin Plan amendment. The schedule to complete the Basin Plan amendment has been delayed due to a new stakeholder outreach requirement and the availability of the Regional Board staff to review draft documents. Based on the latest progress, West Yost anticipates that most of the work to prepare the Basin Plan amendment documents for the Santa Ana Water Board will be completed by June 2025. However, those documents will be in draft form only and West Yost anticipates that additional efforts will be required in FY 2025/26 to address inputs from the Regional Board (including their legal counsel), address comments from the scientific peer reviewers from the State Water Resources Control Board (State Board) peer review process, ensure final documents are in compliance with the Americans with Disabilities Act (ADA), and provide the Regional Board staff with other as requested support. Thus, additional work will be required in FY 2025/26 to complete the Basin Plan amendment.

It is anticipated that the Santa Ana Water Board will adopt the Basin Plan amendment November 2025. Following adoption, the Regional Board staff will also request support through completion and adoption of the Basin plan amendment by the State Board and the Office of Administrative Law (OAL). Adoption by the State Board and approval by the OAL is not likely to occur until around January 2026. West Yost anticipated that limited work is needed to support the Regional Board staff through the State Board and OAL process.

Scope of Work

West Yost shall perform the following tasks in FY 2025/26:

- Finalize the Basin Plan amendment documents (Staff Report, Substitute Environmental Document, Economic Analysis, and Resolution) based on comments received from the Regional Board staff.
- Prepare responses to comments from the scientific peer reviewers.
- Ensure that all Basin Plan amendment documents are in compliance with the ADA, including selecting and coordinating with an ADA subconsultant.
- Prepare draft PowerPoint presentation for Santa Ana Water Board staff to present the Basin Plan amendment to their Board.
- Support development of the Administrative Record.
- Regular coordination with Santa Ana Water Board staff to keep the process moving forward.
- Stakeholder outreach, as needed.
- Perform monthly project management activities, including participate in progress status calls with Watermaster and IEUA staff.

Deliverables

The FY 2025/26 deliverables for this work include:

- Final Basin Plan amendment support documents, including the SED, Staff Report, Economic Analysis, and other supporting documentation. Including, ADA compliant Basin Plan amendment documents.
- PowerPoint presentations and handout materials for any project team, Santa Ana Water Board, and stakeholder meetings.

7511 – PE6/7: COOPERATIVE EFFORTS/SALT MANAGEMENT

As-needed services to support Watermaster in its participation in Santa Ana Watershed Project Authority Task Forces

	Cost Estimate
Consultant Labor	$27,442
Other Direct Costs	$581
Total	**$28,023**

Rationale

The Santa Ana Watershed Project Authority (SAWPA) administers various multi-stakeholder efforts to monitor and analyze water quality in the Santa Ana River Watershed in collaboration with the Santa Ana Regional Water Quality Control Board (Regional Board). Two of the task forces that generate information relevant to Chino Basin OBMP efforts under PE6 and PE7 are the Basin Monitoring Program Task Force (BMPTF) and the Emerging Constituents Task Force (ECTF). The BMPTF is focused on compliance with watershed-wide the salt and nutrient plan defined in the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), such as computing ambient water quality and performing the Wasteload Allocation analysis. These activities have the potential to impact permitting for recycled water use. The ECTF focuses on the investigation of emerging constituents, tracking regulations, and implementing collaborative approaches to compliance and water quality protection. IEUA and Watermaster are members of these Task Forces.

Some of the key activities performed by the Task Forces include:

- Collection and compilation of data used to support the management of water quality in the Santa Ana River Watershed.
- Preparation of the Annual Report of Santa Ana River water quality.
- Preparation of the Annual EC Sampling Report.
- Periodic recomputation of ambient water quality for the Santa Ana River Watershed groundwater management zones (GMZs).
- Periodic review and evaluation of the wasteload allocation for recycled water discharges to the Santa Ana River and its tributaries.
- Periodic assessment of monitoring gaps in the Watershed.
- Periodic assessment and/or review of proposed changes to the Basin Plan SNMP.
- Monthly Task Force meetings.

SAWPA contracts with technical and policy consultants to support the BMPTF and ECTF to implement various studies and activities. The technical and policy work is reviewed at monthly Task Force meetings. The outcomes of the work performed by the Task Forces have direct implications for the planning activities of the Watermaster and IEUA parties.

During FY 2025/26, the BMPTF will be performing the following activities:

- Periodic (monthly to quarterly) meetings to review and discuss current and future Basin Plan SNMP implementation activities.
- Implement groundwater and surface water monitoring plans.
- Develop tools in support of performing annual data collection.
- Collect and review 2022 through 2025 groundwater data.
- Update storage models for selected groundwater management zones.
- Other as-needed work to support the Task Force's mission and objectives.

During FY 2025/26, the ECTF will be performing the following activities:

- Quarterly meetings to review and discuss current and future Basin Plan SNMP implementation activities.
- Implementation of EC monitoring program.
- Advancing discussions on PFAS regulations, and other emerging contaminant regulations.

Scope of Work

West Yost will perform as-requested services to support the Watermaster and IEUA's participation in the Task Force activities. The budget anticipates the following as-requested services for FY 2025/26:

- Attendance at up to 12 monthly Task Force meetings.
- Preparation of Task Force meeting summaries for information relevant to Watermaster.
- Review and comment on interim and final project deliverables prepared by the Task Forces or its consultants.
- Attendance at as-needed meetings with Watermaster and IEUA staff to discuss Task Force draft project deliverables.
- As-needed coordination with Watermaster and IEUA staff on Task Force activities that arise during the year.

Deliverables

The FY 2025/26 deliverables for this work could include:

- Task Force meeting summaries.
- Draft and final review comments on interim and final deliverables prepared by the Task Force or its consultants.
- Other as-requested deliverables defined by Watermaster.

7517 – PE6/7: COOPERATIVE EFFORTS/SALT MANAGEMENT

Implement Chino Creek Monitoring Program – IEUA Cost Share

	Cost Estimate[26]
Consultant Labor	$74,214
Other Direct Costs	$2,654
Total	**$76,868**

Rationale

Pursuant to the Federal Clean Water Act (CWA) Section 303(d) and 305(b), the Santa Ana Regional Water Quality Control Board (Regional Board) is required to periodically assess the water quality of the surface water bodies in the Santa Ana Watershed and publish a list of surface waters that do not meet the water quality standards for beneficial uses and objectives defined in the Santa Ana River Basin Plan (Basin Plan). The current assessment and listing determinations for the Santa Ana Watershed are included in the 2024 California Integrated Report (2024 Integrated Report).

The Final 2024 Integrated Report concluded that there is insufficient data to determine water quality conditions within reach 1B of Chino Creek (Chino Creek 1B). Specifically, there is insufficient data to determine if water quality is consistent with Basin Plan objectives, which was established to support beneficial uses, but the limited data indicates that beneficial uses may be potentially threatened (305[b] Category 3). Without more data, Chino Creek 1B could be listed as impaired in future Integrated Reports, which will require an extensive, multi-stakeholder effort to develop and implement a Total Maximum Daily Loads (TMDL) program and could impact recycled water permits and uses in the Chino Basin. The Regional Board expressed that more data is needed to assess water quality conditions compared to objectives in future Integrated Reports. Recognizing the TMDL impact on IEUA and Watermaster's recycled water activities, the Regional Board requested Watermaster and IEUA to develop a surface water monitoring program to characterize conditions along Chino Creek (Chino Creek Monitoring Program).

During FY 2022/23, Watermaster and IEUA collaborated with Santa Ana Water Board staff to develop the Chino Creek Monitoring Program Work Plan and the Quality Assurance Project Plan (QAPP) that will satisfy the requirements of the California Clean Water Act Section 303 (d) List (Listing Policy) for Chino Creek. Watermaster and IEUA have been implementing the work plan since August 2024. Watermaster and IEUA will continue to implement the work plan in FY 2025/26 through FY 2026/27.

Scope of Work

In FY 2025/26, West Yost will perform the following tasks in accordance with the Chino Creek Monitoring Program Workplan:

- Perform 12 monthly surface water sampling events at the recommended surface water sites.
- Coordinate with the IEUA operation and laboratory teams on sampling.
- Perform quality assurance/quality control (QA/QC) check, compile, and process laboratory results into centralized project database.

[26] Includes $20,000 of carryover from FY 2024/25 to analyze the monitoring results from FY 2024/25 and prepare figures to characterize surface water quality. The share of the carryover for Watermaster is $10,000.

- Review data and prepare figures to characterize surface water conditions.
- Upload surface water quality data into the California Environmental Data Exchange Network (CEDEN) annually.
- Conduct as-needed meetings with Watermaster, IEUA, Basin Monitoring Program Task Force, and the Regional Board on project status and sampling results.

Deliverables

- Figures characterizing surface water quality conditions

Cost Estimate for FY 2026/27

The Class 3 cost estimate[27] to continue this work over FY 2026/27 is about $106,000.

[27] Class 3 cost estimates have an expected accuracy of between -20% and +30% of the actual costs.

7520 – PE6/7: COOPERATIVE EFFORTS/SALT MANAGEMENT

Water Quality Management Program

	Cost Estimate
Consultant Labor	$39,000
Other Direct Costs	$250
Total	**$39,250**

Rationale

As part of the 2020 OBMPU, the stakeholders identified several management activities necessary to achieve the goals of the 2020 OBMPU. Two of the 2020 OBMPU activities address groundwater quality:

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

The specific action defined to encapsulate these activities within the 2020 OBMPU was the development of a Water Quality Management Plan that addresses emerging contaminants to better prepare the parties for addressing compliance with new State and Federal drinking water regulations and provides for the long-term maximum beneficial use of the basin. It was identified that reconvening the Watermaster's Water Quality Committee (WQC) would be the ideal approach to guide the development and implementation of such a management plan to guide the activities over the next several years.

In FY 2023/24 Watermaster reconvened the WQC and conducted three meetings. The first meeting was to educate participants on historical water quality activities performed by Watermaster pursuant to the 2000 OBMP, review the successes of the WQC's past work, and obtain feedback from the stakeholders on the opportunity and proposed scope and objectives for developing a water quality management plan, including development of an Emerging Contaminants Monitoring Plan (ECMP). The other two WQC meetings were to develop the ECMP and obtain stakeholder feedback and review on its methods.

Based on feedback received through the WQC, the concept of a water quality management plan was re-envisioned into a simpler, more adaptable Water Quality Management Program (WQMP) led by the WQC, following the approach used from 2003 to 2010 under Program Element 6 of the 2000 OBMP. As re-envisioned, the WQMP is an ongoing process where the focus of the work performed each year will be defined/refined based on stakeholder input received through the WQC. Under the WQMP, the WQC would meet up to address some or all the following objectives:

- Informing stakeholders on the available data and information on water quality in the Chino Basin
- Regularly educating and sharing information on potential future water quality regulations
- Implementing an ECMP to monitor and characterize contaminant occurrence in the Chino Basin where data is not available to assess potential impacts of regulations
- Tracking available grant funding and loan opportunities to advance water quality programs and projects
- Identifying opportunities for multi-agency and/or multi-benefit projects

- Enhancing the ability to characterize potential impacts to the Chino Basin as a result of Parties' operational/management responses to water quality regulations (e.g., impacts to Safe Yield or recycled water recharge program)
- Conducting other activities of interest to the stakeholders to address water quality management or concerns.

In FY 2024/25, West Yost assisted Watermaster staff in coordinating and implementing the sampling for the ECMP. This involved Watermaster conducting sampling for a list of emerging contaminants during routine sampling at monitoring wells, and additional voluntary sampling by the Appropriators for some emerging contaminants. So far, there has been no WQC meetings in FY 2024/25. The Watermaster plans to conduct two WQC meetings in FY 2025/26.

Scope of Work

For FY 2025/26, West Yost will support Watermaster Staff in implementing the WQMP by supporting the WQC process. The work will include:

- Prepare for and conduct up to two meetings of the WQC, including preparing supporting materials, such as agendas, handouts, meeting summaries, etc.
- Characterizing the emerging contaminants in the Basin after sampling for the ECMP conducted during FY 2024/25 is completed.

Deliverables

- Meeting agendas, handouts, presentations, and meeting summaries for the WQC meetings
- Maps characterizing the extent of emerging contaminants in the Basin

7610 – PE8/9: STORAGE MANAGEMENT/CONJUNCTIVE USE

Develop Storage and Recovery Master Framework

	Cost Estimate
Consultant Labor	$21,520
Other Direct Costs	$200
Total	**$21,720**

Rationale

As part of the 2020 OBMPU, the stakeholders identified several management activities necessary to achieve the goals of the 2020 OBMPU. Activity B of the 2020 OBMPU was to "develop, implement, and optimize Storage and Recovery Programs to increase water-supply reliability, protect or enhance Safe Yield, and improve water quality." Activity B falls under Program Element 9 of the 2020 OBMPU. Exhibit 7 of the 2020 OBMPU defined a multi-year scope of work to execute this activity:

1. Convene the Storage and Recovery Program Committee (Committee), define objectives, and refine scope of work.
2. Develop conceptual alternatives for Storage and Recovery Programs at various scales.
3. Describe and evaluate reconnaissance-level facility plans and costs for Storage and Recovery Program alternatives.
4. Prepare *Storage and Recovery Master Framework (SRMF).*

Watermaster staff began implementing Task 1 in FY 2023/24. This effort was postponed in FY 2024/25 due to the completion of the 2025 Safe Yield Reevaluation.

Scope of Work

The work required in FY 2025/26 is to work with Watermaster staff and the parties to define a scope of work for the future development of the SRMF. This will include preparing and conducting one Committee meeting to review the conclusions from the 2023 Committee kick-off meeting and defining a scope and budget for Steps 2 through 4 of the SRMF process. The scope and budget that is developed through this process will be brought through the Watermaster process for approval.

Deliverables

West Yost's deliverables will include presentation materials for the Committee meeting in FY 2025/26 and a scope and budget to implement Steps 2 through 4 of the SRMF process.

7614 – PE8/9: STORAGE MANAGEMENT/CONJUNCTIVE USE

Support Implementation of the Safe Yield Court Order

	Task 1	Task 2	Total
Consultant Labor	$85,280	$73,632	$158,912
Other Direct Costs	$0	$400	$400
Total	**$85,280**	**$74,032**	**$159,312**

Rationale

The Safe Yield of the Chino Basin was recalculated in May 2020 pursuant to the methodology approved by the Court on April 28, 2017. The Court adopted a Safe Yield of 131,000 acre-feet per year for the period of fiscal year 2020/21 through 2029/30. The Court-approved methodology was outlined in a Court Order from April 28, 2017 (2017 Court Order). The Court Order also included requirements for (1) annual data collection and evaluation, (2) a reevaluation of the current Safe Yield by June 30, 2025 (the 2025 Safe Yield Reevaluation, or 2025 SYR), and (3) peer review to support these efforts.

West Yost began the work to implement the 2017 Court Order in fiscal year 2021/22.[28] This work included updating the Safe Yield Reset methodology, developing annual data collection and evaluation reports covering the periods through FY 2023/24, and completing the 2025 SYR. The 2025 SYR was completed by June 30, 2025.

Scope of Work

The work required in FY 2024/25 will include completing the annual data collection and evaluation, supporting the 2025 Safe Yield Reevaluation, and facilitating the associated peer review. This scope is broken down into the following tasks:

- **Task 1 – Annual data collection and evaluation.** Pursuant to pages 16 and 17 of the Court Order, Task 1 includes collecting data from the parties and other sources and analyzing the data in the context of West Yost's groundwater modeling. Data collection will begin in July 2025 for fiscal year 2024/25. The scope of Task 1 assumes the following:
  - Existing data collection efforts (e.g., groundwater pumping measurements) will be collected via other Watermaster efforts and are not included in this scope.
  - West Yost will develop exhibits to compare the collected data to previous historical and modeling data as necessary to document the data collection in an annual report and present the data to the Peer Review committee.
  - West Yost will prepare a draft and final data collection report. The draft report will be reviewed with the Peer Review committee, comments will be incorporated, and the final report will be submitted to the Court no later than June 30, 2026.

[28] All deliverables for the implementation of the 2017 Court Order can be found on Watermaster's website here: Chino Basin Watermaster - 2017 Safe Yield Court Order Implementation

- **Task 2 – Support Implementation of the 2025 Safe Yield Reevaluation.** Following the submittal of the 2025 SYR Report, Watermaster will require support to implement any of the findings of the 2025 SYR and respond to requests from the parties. The scope is anticipated to include:
  - Support for Court motions that may result from the 2025 SYR, including additional documentation (e.g., Court declarations) or Court appearances.
  - Additional simulations of the groundwater model or additional analysis of groundwater model results to respond to party or Watermaster staff requests.
  - Preparation of exhibits, presentation materials, and support to conduct workshops.

The specific scope of any support for implementation of the 2025 SYR will be defined and agreed upon with Watermaster staff prior to the execution of the scope.

Deliverables

West Yost's primary deliverables will be the following draft technical memoranda/reports:

- A draft and final report documenting the data collection process and the data collected through FY 2024/25.
- West Yost will prepare other deliverables as needed to support the technical workshops and meetings in Tasks 1 and 2.

7615 – PE8/9: STORAGE MANAGEMENT/CONJUNCTIVE USE

Develop 2025 Storage Management Plan

	Cost Estimate
Consultant Labor	$137,616
Other Direct Costs	$200
Total	**$137,816**

Rationale

The Judgment established a Watermaster to administer the decree under the court's continuing jurisdiction and empowered it to manage and control available storage capacity and to enter into agreements for the storage of water. As a prerequisite to implementing the 2000 OBMP, the Parties executed the Peace Agreement, providing direction and guidance to Watermaster on how storage should be prioritized and managed. The 2000 OBMP included the original plans for storage management, including groundwater pumping, recharge, storage and recovery, and the transfer of water. The 2020 OBMPU involved the review and refinement of the original storage management planning work and included the development of the 2020 Storage Management Plan (SMP).

The 2020 SMP described the existing and projected uses of storage by parties, agencies engaged in Storage and Recovery Programs, the need for recharge capacity for replenishment obligations, the parties' storage management activities, guidance for Storage and Recovery Programs, and the Storage Agreement application process.

The SMP is required to be reviewed and updated (1) at no less than a five-year frequency, (2) when the Safe Yield is recalculated, or (3) when Watermaster determines a review and update is warranted based new information and/or the needs of the parties or the Basin. As the 2020 SMP was completed in October 2020, it must be updated no later than October 2025.

Scope of Work

The work required in FY 2025/26 is to continue developing the 2025 SMP with the latest planning information, understanding, and guidance related to the use and management of storage, leveraging the results of the 2025 Safe Yield Reevaluation. The scope includes two workshops with the parties to review the requirements of the SMP, discuss results and review the draft SMP, and gather feedback from the parties.

Deliverables

West Yost's deliverables will include a draft and final version of the SMP, as well as presentation materials to support the workshops.

Table 1: Cost Estimates for Watermaster Engineering Services -- FY 2025/26

Watermaster Account	Watermaster Group	Notes	Task	Other Direct Costs: Total Labor Cost Task	Total Labor Cost Project	Total Labor Cost Account	Total ODCs Task	Total ODCs Project	Total ODCs Account	Expected Total Carryover from 2024/25	Total Engineering Cost Estimate 2025/26	IEUA Cost Share & IEUA Carryover from 2024/25	Watermaster Engineering Cost Estimate 2025/26	Expected Watermaster Carryover from 2024/25	Proposed Watermaster Budget for Engineering Services 2025/26: Task	Project	Account
General Optimum Basin Management Program/Judgment Administration						***$552,331***			***$4,463***	***$60,000***	***$616,795***	***$0***	***$616,795***	***$60,000***			***$556,795***
General Engineering					*$552,331*			*$4,463*		*$60,000*	*$616,795*	*$0*	*$616,795*	*$60,000*		***$556,795***	
8306, 8506, 8406, 6206, 6306	General	f	Pool, Advisory, Watermaster Meetings	$110,808			$2,313				$113,121		$113,121		$113,121		
5901.8, 6901.8	General	f	Other General Meetings as Requested	$75,968			$1,850				$77,818		$77,818		$77,818		
5935	General	abcC	Material Physical Injury Requests	$41,668							$41,668		$41,668		$41,668		
5906.71	General	f	Miscellaneous Data Requests - GM/Watermaster Staff	$108,824			$300				$109,124		$109,124		$109,124		
5906.72	General	f	Miscellaneous Data Requests - Non CBWM Staff/RFI	$56,483							$56,483		$56,483		$56,483		
6901.95	General	e	Annual Streamflow Monitoring Report - Water Rights Permit 21225	$23,596							$23,596		$23,596		$23,596		
6901.95	General	e	SGMA Reporting Requirement for WC Section 10720.8 (f)	$24,068							$24,068		$24,068		$24,068		
6906	General	f	Project Management	$65,810							$65,810		$65,810		$65,810		
6906.1	General	bdC	Watermaster Model Application and Required Demonstrations	$8,176						$60,000	$68,176		$68,176	$60,000	$8,176		
6901.95	General	e	Compliance with SWRCB Regulations Regarding Measurement and Reporting Diversion of Water	$19,168							$19,168		$19,168		$19,168		
5945	General	eJ	Assist Watermaster in Preparing the 48th Annual Report	$17,762							$17,762		$17,762		$17,762		
Program Element 1: Comprehensive Monitoring Program						***$879,544***			***$356,488***	***$16,000***	***$1,252,032***	***$109,292***	***$1,142,741***	***$16,000***			***$1,126,741***
7502 and 7505 Groundwater and Surface Water Quality Monitoring					*$227,022*			*$49,530*		*$7,000*	*$283,552*	*$0*	*$283,552*	*$7,000*		***$276,552***	
7502	PE1/GWQMP	abcd	GWQMP: KEY	$10,408							$10,408		$10,408		$10,408		
7502	PE1/GWQMP	abcd	GWQMP: FIELD-as needed field support	$21,472			$2,060			$7,000	$30,532		$30,532	$7,000	$23,532		
7505	PE1/GWQMP	abcd	GWQMP: LAB				$21,400				$21,400		$21,400		$21,400		
7502	PE1/GWQMP	abcd	GWQMP: DB-Field-Lab	$12,136							$12,136		$12,136		$12,136		
7502	PE1/GWQMP	abcd	GWQMP: DB-CBDC	$126,744							$126,744		$126,744		$126,744		
7502	PE1/HCMP	Ccd	HCMP: GWQ/SWQ - SARWC/NAWQA/SAR	$23,904			$3,120				$27,024		$27,024		$27,024		
7505	PE1/HCMP	Ccd	HCMP: GWQ/SWQ - SARWC/NAWQA/SAR - LAB				$8,200				$8,200		$8,200		$8,200		
7502	PE1/HCMP	Ccd	HCMP: GWQ HCMP MWs	$23,156			$2,850				$26,006		$26,006		$26,006		
7505	PE1/HCMP	Ccd	HCMP: GWQ HCMP MWs - LAB				$11,700				$11,700		$11,700		$11,700		
7502	PE1/RWGRP	ce	PBHSP: SWQMP	$9,202			$200				$9,402		$9,402		$9,402		
7104.3 Groundwater Level Monitoring Program					*$273,862*			*$49,060*		*$9,000*	*$331,922*	*$0*	*$331,922*	*$9,000*		***$322,922***	
7104.3	PE1/GWLMP	abcd	GWLMP: HCMP/GWR/MZ1/MZ3/MWL: SCHED	$6,814							$6,814		$6,814		$6,814		
7104.3	PE1/GWLMP	abcd	GWLMP: KEY	$5,568							$5,568		$5,568		$5,568		
7104.3	PE1/GWLMP	abcd	GWLMP: HCMP/GWR/MZ1/MZ3/MWL: FIELD	$64,592			$4,900				$69,492		$69,492		$69,492		
7104.3	PE1/GWLMP	abcd	GWLMP: HCMP/GWR/MZ1/MZ3/MWL: DB-WL	$53,960							$53,960		$53,960		$53,960		
7104.3	PE1/GWLMP	abcd	GWLMP: DB-CBDC	$65,523							$65,523		$65,523		$65,523		
7104.3	PE1/GWLMP	e	CASGEM Reporting	$8,460							$8,460		$8,460		$8,460		
7104.8	PE1/GWLMP	abcd	GWLMP: Contract Services	$7,128			$22,000			$9,000	$38,128		$38,128	$9,000	$29,128		
7104.9	PE1/GWLMP	abcd	GWLMP: Capital Equipment (Transducers)				$19,000				$19,000		$19,000		$19,000		
7104.3	PE4/MZ-1	abC	GWLMP: Northwest MZ-1 Area: GWLMP	$28,640			$2,010				$30,650		$30,650		$30,650		
7104.3	PE1/RWGRP	ce	GWLMP: PBHSP	$33,177			$1,150				$34,327		$34,327		$34,327		
7402 MZ-1 Ground Level Monitoring Program					*$170,923*			*$174,408*		*$0*	*$345,331*	*$0*	*$345,331*	*$0*		***$345,331***	
Subtask 1 - Setup and Maintenance of the Monitoring Network										*$0*	*$51,357*	*$0*	*$51,357*	*$0*			
7402	PE1/GLMP	abC	MZ1-GLMP: Setup and Maintenance of Monitoring Network	$30,963			$1,287				$32,250		$32,250		$32,250		
7408	PE1/GLMP	abC	MZ1-GLMP: Setup and Maintenance of Monitoring Network - Equipment	$11,328			$7,779				$19,107		$19,107		$19,107		
Subtask 2 - MZ-1: Aquifer-System Monitoring and Testing										*$0*	*$35,230*	*$0*	*$35,230*	*$0*			
7402	PE1/GLMP	abC	MZ1-GLMP: Aquifer System Monitoring and Testing	$34,408			$822				$35,230		$35,230		$35,230		
Subtask 3 - Basin-Wide: InSAR										*$0*	*$111,216*	*$0*	*$111,216*	*$0*			
7402	PE1/GLMP	abC	BW-GLMP: InSAR	$82,616							$82,616		$82,616		$82,616		
7403	PE1/GLMP	abC	BW-GLMP: InSAR - Outside Pro				$28,600				$28,600		$28,600		$28,600		
Subtask 4 - Ground-Level Surveys										*$0*	*$147,528*	*$0*	*$147,528*	*$0*			
7402	PE1/GLMP	abC	MZ1-GLMP: Ground Level Surveys	$11,608							$11,608		$11,608		$11,608		
7406	PE1/GLMP	abC	MZ1-GLMP: Ground Level Surveys - Outside Pro				$135,920				$135,920		$135,920		$135,920		
7302 Prado Basin Habitat Monitoring, Data Analysis and Reporting - 50% IEUA Cost Share					*$155,093*			*$63,490*		*$0*	*$218,583*	*$109,292*	*$109,292*	*$0*		***$109,292***	
7302	PE1/RWGRP	ce	PBHSP - Vegetation Monitoring Program	$34,714							$34,714	$17,357	$17,357		$17,357		
7306	PE1/RWGRP	ce	PBHSP - Vegetation Monitoring Program - Outside Pro				$63,000				$63,000	$31,500	$31,500		$31,500		
7302	PE1/RWGRP	ce	PBHSP - Climate Monitoring Program	$2,953			$250				$3,203	$1,602	$1,602		$1,602		
7302	PE1/RWGRP	ce	PBHSP - Prepare Annual Report	$93,209			$120				$93,329	$46,664	$46,664		$46,664		
7302	PE1/RWGRP	ce	PBHSP - Meetings and Project Administration	$24,218			$120				$24,338	$12,169	$12,169		$12,169		
7202 Recharge and Well Monitoring Program: Pursuant to the Groundwater Recharge Permit and Maximum Benefit					*$23,350*			*$0*		*$0*	*$23,350*	*$0*	*$23,350*	*$0*		***$23,350***	
7202	PE1/RWGRP	e	RWGRP: Review Documents for Chino Basin Recycled Water GW Recharge Program	$23,350							$23,350		$23,350		$23,350		

Table 1: Cost Estimates for Watermaster Engineering Services -- FY 2025/26

Watermaster Account	Watermaster Group	Notes	Task	Total Labor Cost Task	Total Labor Cost Project	Total Labor Cost Account	Other Direct Costs Total ODCs Task	Other Direct Costs Total ODCs Project	Other Direct Costs Total ODCs Account	Expected Total Carryover from 2024/25	Total Engineering Cost Estimate 2025/26	IEUA Cost Share & IEUA Carryover from 2024/25	Watermaster Engineering Cost Estimate 2025/26	Expected Watermaster Carryover from 2024/25	Proposed Watermaster Budget for Engineering Services 2025/26 Task	Proposed Watermaster Budget for Engineering Services 2025/26 Project	Proposed Watermaster Budget for Engineering Services 2025/26 Account
5925 Agriculture Production Estimation					*$11,992*			*$20,000*		*$0*	*$31,992*	*$0*	*$31,992*	*$0*		***$31,992***	
5925	General	J	Agricultural Production Estimation	$11,992			$20,000				$31,992		$31,992		$31,992		
5965 Support for Implementation of Improved Data Collection and Management Process					*$17,302*			*$0*		*$0*	*$17,302*	*$0*	*$17,302*	*$0*		***$17,302***	
5965	General	f	Support for Implementation of Improved Data Collection	$17,302							$17,302		$17,302		$17,302		
7200 Program Element 2: Comprehensive Recharge Program						***$180,896***			***$600***	***$0***	***$181,496***	***$0***	***$181,496***	***$0***			***$181,496***
7202 Engineering Services					*$180,896*			*$600*		*$0*	*$181,496*	*$0*	*$181,496*	*$0*		***$181,496***	
7202.2	PE2	abcdC	RIPComm & GRCC Meetings	$19,584			$600				$20,184		$20,184		$20,184		
7202.2	PE2	abcdC	2013 RMPU Implementation & As-Requested Support for Recharge Project Analyses	$51,712							$51,712		$51,712		$51,712		
7202.2	PE2	abcdC	2023 RMPU Implementation	$109,600							$109,600		$109,600		$109,600		
7300 Program Elements 3 & 5: Water Supply Plan - Desalters						***$21,080***			***$0***	***$0***	***$21,080***	***$0***	***$21,080***	***$0***			***$21,080***
7303 Engineering Services					*$21,080*			*$0*		*$0*	*$21,080*	*$0*	*$21,080*	*$0*		***$21,080***	
7303	PE3-5	f	PE3-5: Engineering Support for Desalters	$21,080							$21,080		$21,080		$21,080		
7400 Program Element 4: Mgmt Zone Strategies						***$333,292***			***$60,395***	***$0***	***$393,687***	***$0***	***$393,687***	***$0***			***$393,687***
7402 Engineering Services					*$333,292*			*$60,395*		*$0*	*$393,687*	*$0*	*$393,687*	*$0*		***$393,687***	
Subtask 5 - Data Analyses and Reports											*$91,668*		*$91,668*	*$0*			
7402	PE4/MZ-1	abC	PE4/MZ-1: Data Analyses and Reports	$81,668			$10,000				$91,668		$91,668		$91,668		
Subtask 6 - Develop a Subsidence Management Plan for Northwest MZ-1										*$0*	*$241,128*	*$0*	*$241,128*	*$0*			
7402.1	PE4/MZ-1	abC	Aquifer-System Monitoring	$4,792							$4,792		$4,792		$4,792		
7402.1	PE4/MZ-1	abC	Refurbish PX and add telemetry; Periodically check and adjust extensometers	$68,000			$50,000				$118,000		$118,000		$118,000		
7402.1	PE4/MZ-1	abC	Refine and Evaluate Subsidence-Management Alternatives	$118,336							$118,336		$118,336		$118,336		
Subtask 7 - Meetings and Administration										*$0*	*$60,891*	*$0*	*$60,891*	*$0*			
7402	PE4/MZ-1	abC	PE4/MZ-1: Meetings and Administration	$60,496			$395				$60,891		$60,891		$60,891		
7500 Program Elements 6 & 7: Coop Efforts/Salt Mgmt						***$334,927***			***$8,785***	***$30,000***	***$373,712***	***$47,956***	***$325,756***	***$20,000***			***$305,756***
7502 Engineering Services					*$198,828*			*$1,700*		*$10,000*	*$210,528*	*$0*	*$210,528*	*$10,000*		***$200,528***	
7502	PE6-7	abC	PE6: Analysis of Chino Basin Contaminant Plumes	$52,632			$200				$52,832		$52,832		$52,832		
7502	PE6-7	Ccd	PE7: Maximum Benefit Annual Report	$43,612							$43,612		$43,612		$43,612		
7502	PE6-7	de	PE7: Prepare Updated Groundwater and Surface Water Monitoring Work Plan	$17,204						$10,000	$27,204		$27,204	$10,000	$17,204		
NEW	PE6-7	de	PE7: Prepare a Work Plan to Improve the Chino Basin Groundwater Quality Model - Pending Discussion on Cost Share with IEUA	$70,216							$70,216		$70,216		$70,216		
7502	PE6-7	abC	As needed support for implementation of PE 6/7	$15,164			$1,500				$16,664		$16,664		$16,664		
7510 Update IEUA's Recycled Water Permit/Maximum Benefit Salinity Management Plan					*$15,444*			*$3,600*		*$0*	*$19,044*	*$9,522*	*$9,522*	*$0*		***$9,522***	
7510	PE6-7	df	Update IEUA's Recycled Water Permits/Maximum Benefit Salinity Management Plan for the Chino Basin - IEUA Cost Share	$15,444			$3,600				$19,044	$9,522	$9,522		$9,522		
7511 Support Watermaster in Participation and Review of Santa Ana Watershed Basin Monitoring Program Task Force					*$27,442*			*$581*		*$0*	*$28,022*	*$0*	*$28,022*	*$0*		***$28,022***	
7511	PE6-7	df	As requested services to support Watermaster in its participation in and review of work performed by the Santa Ana Watershed Basin Monitoring Program Task Force	$27,442			$581				$28,022		$28,022		$28,022		
7517 Prepare Monitoring Work Plan for Chino Creek					*$54,214*			*$2,654*		*$20,000*	*$76,868*	*$38,434*	*$38,434*	*$10,000*		***$28,434***	
7517	PE6-7	de	Implementation of Chino Creek Monitoring Program - IEUA Cost Share	$54,214			$2,654			$20,000	$76,868	$38,434	$38,434	$10,000	$28,434		
7520 Preparation of Water Quality Management Plan					*$39,000*			*$250*		*$0*	*$39,250*	*$0*	*$39,250*	*$0*		***$39,250***	
7520	PE6-7	a	Water Quality Management Program	$39,000			$250				$39,250		$39,250		$39,250		
7600 Program Elements 8 & 9: Storage Mgmt/Conj Use						***$318,048***			***$800***	***$0***	***$318,848***	***$0***	***$318,848***	***$0***			***$318,848***
7602 Engineering Services					*$318,048*			*$800*		*$0*	*$318,848*	*$0*	*$318,848*	*$0*		***$318,848***	
7610	PE8-9	abJ	Develop Storage and Recovery Master Framework	$21,520			$200				$21,720		$21,720		$21,720		
7614	PE8-9	beC	Support Implementation of the Safe Yield Court Order	$158,912			$400				$159,312		$159,312		$159,312		
7615	PE8-9	abJ	Develop 2025 Storage Management Plan	$137,616			$200				$137,816		$137,816		$137,816		
Totals				**$2,620,119**	**$2,620,119**	**$2,620,119**	**$431,531**	**$431,531**	**$431,531**	**$106,000**	**$3,157,650**	**$157,248**	**$3,000,403**	**$96,000**	**$2,904,403**	**$2,904,403**	**$2,904,403**

Notes:

Work mandated by:

a OBMP & Peace Agreement
b OBMP Implementation Plan
c Peace II
d Water Quality Control Plan for the Santa Ana River Basin (Basin Plan)
e Other Regulatory Compliance
f Watermaster staff request
g New scope item related to Watermaster Process and Testimony at Court if required
C Court Order
J Judgment

Table 2: Comparison of Watermaster Engineering Costs
FY 2025/26 versus FY 2024/25

FY 2025/26 Account No(s).	Task	Watermaster Engineering Cost Estimate FY 25/26[1]	Watermaster Engineering Cost Estimate FY 24/25[2]	Net Change
General Optimum Basin Management Program/Judgment Administration		**$616,795**	**$762,945**	**($146,151)**
8306, 8506, 8406, 6206, 6306	Pool, Advisory, Watermaster Meetings	$113,121	$117,551	($4,430)
6901.8, 5901.8	Other General Meetings as Requested	$77,818	$74,132	$3,687
5935	Material Physical Injury Requests	$41,668	$39,452	$2,216
5906.71	Miscellaneous Data Requests - GM/Watermaster Staff	$109,124	$101,048	$8,076
5906.72	Miscellaneous Data Requests - Non CBWM Staff/RFI	$56,483	$37,008	$19,475
6901.95	Annual Streamflow Monitoring Report - Water Rights Permit 21225	$23,596	$22,416	$1,180
6901.95	SGMA Reporting Requirement for WC Section 10720.8 (f)	$24,068	$21,926	$2,142
6906	Project Management	$65,810	$51,440	$14,370
6906.1	Watermaster Model Application and Required Demonstrations	$68,176	$67,596	$580
6901.95	Compliance with SWRCB Regulations Regarding Measurement and Reporting Diversion of Water	$19,168	$18,264	$904
5945	Assist Watermaster in Preparing the 48th Annual Report	$17,762	$16,924	$838
6906.21	2024 State of the Basin Report	$0	$195,188	($195,188)
7100 Program Element 1: Comprehensive Monitoring Program		**$1,142,741**	**$1,085,996**	**$56,745**
7502, 7505	Groundwater Quality Monitoring Program	$283,552	$332,468	($48,916)
7104.3, 7104.8, 7104.9	Groundwater Level Monitoring Program	$331,922	$317,501	$14,421
7402, 7403, 7406, 7408	Ground Level Monitoring Program	$345,331	$261,971	$83,360
7302, 7306	PBHSP - Monitoring Program	$109,292	$79,805	$29,487
7202	Review Documents for Chino Basin Recycled Water GW Recharge Program	$23,350	$23,496	($146)
5925	Agricultural Production Estimation	$31,992	$31,096	$896
5965	Support for Implementation of Improved Data Collection	$17,302	$39,659	($22,357)
7200 Program Element 2: Comprehensive Recharge Program		**$181,496**	**$175,944**	**$5,552**
7202.2	PE2: Comprehensive Recharge Program	$181,496	$175,944	$5,552
7300 Program Elements 3 & 5: Water Supply Plan - Desalter		**$21,080**	**$16,180**	**$4,900**
7303	PE3-5: Engineering Support for Desalters	$21,080	$16,180	$4,900
7400 Program Element 4: Management Zone Strategies		**$393,687**	**$374,677**	**$19,010**
7402	PE4/MZ-1: Data Analyses, Reports, Meetings, and Administration	$152,559	$215,021	($62,462)
7402.1	PE4: Subsidence Management Plan for Northwest MZ-1	$241,128	$159,656	$81,472
7500 Program Elements 6 & 7: Cooperative Efforts/Salt Management		**$325,756**	**$368,640**	**($42,883)**
7502	PE6-7: Consulting Services for Water Quality under PE 6/7	$210,528	$148,582	$61,946
7510	Update IEUA's Recycled Water Permits/Maximum Benefit Salinity Management Plan for the Chino Basin - IEUA Cost Share	$9,522	$20,752	($11,230)
7511	As Requested Services to Review of Work Performed by Santa Ana Watershed BMPTF	$28,022	$27,067	$955
7508	Follow-on work for the mitigation plan for the temporary loss of Hydraulic Control - IEUA Cost Share	$0	$0	$0
7517	Implementation of Chino Creek Monitoring Program - IEUA Cost Share	$38,434	$42,074	($3,641)
7520	Water Quality Management Program	$39,250	$130,164	($90,914)
7600 Program Elements 8 & 9: Storage Management/Conjunctive Use		**$318,848**	**$885,602**	**($566,754)**
7610	Develop Storage and Recovery Master Framework	$21,720	$57,584	($35,864)
7614	Support Implementation of the Safe Yield Court Order	$159,312	$785,386	($626,074)
7615	Develop 2025 Storage Management Plan	$137,816	$42,632	$95,184
Totals		**$3,000,403**	**$3,669,983**	**($669,580)**

Notes:

[1] Total engineering cost estimate ($3,157,650) minus estimated IEUA cost-share contribution ($157,248) from Table 1

[2] Total engineering cost estimate ($3,812,614) minus estimated IEUA cost-share contribution ($142,631)

Table 3: Variance Explanations for Engineering Costs
FY 2025/26 versus FY 2024/25

FY 2025/26 Account No(s).	Task	Change from FY 24/25	Variance Explanation
General Optimum Basin Management Program/Judgment Administration		**($146,151)**	
8306, 8506, 8406, 6206, 6306	Pool, Advisory, Watermaster Meetings	($4,430)	
6901.8, 5901.8	Other General Meetings as Requested	$3,687	
5935	Material Physical Injury Requests	$2,216	
5906.71	Miscellaneous Data Requests - GM/Watermaster Staff	$8,076	
5906.72	Miscellaneous Data Requests - Non CBWM Staff/RFI	$19,475	The as-requested efforts were greater than budgeted in FY 2024/25. As a result, the budget for FY 2025/26 has been increased.
6901.95	Annual Streamflow Monitoring Report - Water Rights Permit 21225	$1,180	
6901.95	SGMA Reporting Requirement for WC Section 10720.8 (f)	$2,142	
6906	Project Management	$14,370	
6906.1	Watermaster Model Application and Required Demonstrations	$580	
6901.95	Compliance with SWRCB Regulations Regarding Measurement and Reporting Diversion of Water	$904	
5945	Assist Watermaster in Preparing the 48th Annual Report	$838	
6906.21	2024 State of the Basin Report	($195,188)	This is a biennial task that will be completed in FY 2024/25.
7100 Program Element 1: Comprehensive Monitoring Program		**$56,745**	
7502, 7505	Groundwater Quality Monitoring Program	($48,916)	The scope for FY 2024/25 included additional sampling for the ECMP and trienniel sampling which will not be performed in FY 2025/26. And FY 2024/25 included carryover funds to complete a well rehab project that was completed during the fiscal year.
7104.3, 7104.8, 7104.9	Groundwater Level Monitoring Program	$14,421	
7402, 7403, 7406, 7408	Ground Level Monitoring Program	$83,360	Cost increase compared to FY 2024/25 is due to a new ground-level elevation survey in the Northeast Area and benchmark ground-level reconnaissance that was not conducted in FY 2024/25.
7302, 7306	PBHSP - Monitoring Program	$29,487	The increase in cost in FY 2025/26 is due to the triennial field vegetation surveys being performed this year.
7202	Review Documents for Chino Basin Recycled Water GW Recharge Program	($146)	
5925	Agricultural Production Estimation	$896	
5965	Support for Implementation of Improved Data Collection	($22,357)	The level of effort to support Watermaster staff with the development and implementation of the Data Portal has changed.
7200 Program Element 2: Comprehensive Recharge Program		**$5,552**	
7202.2	PE2: Comprehensive Recharge Program	$5,552	
7300 Program Elements 3 & 5: Water Supply Plan - Desalter		**$4,900**	
7303	PE3-5: Engineering Support for Desalters	$4,900	
7400 Program Element 4: Mgmt Zone Strategies		**$19,010**	
7402	PE4/MZ-1: Data Analyses, Reports, Meetings, and Administration	($62,462)	The scope of work in FY 2025/26 is similar to FY 2024/25. The 2024/25 cost estimate included carryover from the prior year that accounts for the variance.
7402.1	PE4: Subsidence Management Plan for Northwest MZ-1	$81,472	The Pomona Extensometer is scheduled for refurbishment, with telemetry installation planned for FY 2025/26. In addition, the subsidence management alternatives will be refined in FY 2025/26 based on the results of the 2025 Safe Yield Reevaluation.
7500 Program Elements 6 & 7: Coop Efforts/Salt Mgmt		**($42,883)**	
7502	PE6-7: Consulting Services for Water Quality under PE 6/7	$61,946	The scope of work for FY 2025/26 includes a new task to prepare a work plan to improve the Chino Basin Groundwater Quality Model, which was not included in FY 2024/25.

Table 3: Variance Explanations for Engineering Costs
FY 2025/26 versus FY 2024/25

FY 2025/26 Account No(s).	Task	Change from FY 24/25	Variance Explanation
7510	Update IEUA's Recycled Water Permits/Maximum Benefit Salinity Management Plan for the Chino Basin - IEUA Cost Share	($11,230)	
7511	As Requested Services to Review of Work Performed by Santa Ana Watershed BMPTF	$955	
7512	Follow-on work for the mitigation plan for the temporary loss of Hydraulic Control - IEUA Cost Share	$0	
7517	Implementation of Chino Creek Monitoring Program - IEUA Cost Share	($3,641)	
7520	Water Quality Management Program	($90,914)	The scope in FY 2025/26 is less than the prior year due to less WQC meeetings and a reduced scope of the WQMP process.
7600 Program Elements 8 & 9: Storage Mgmt/Conj Use		**($566,754)**	
7610	Develop Storage and Recovery Master Framework	($35,864)	The scope in FY 2025/26 is less than the prior year because this task will be re-scoped following the results of the 2025 Safe Yield Reevaluation and discussions with the parties.
7614	Support Implementation of the Safe Yield Court Order	($626,074)	The 2025 Safe Yield Reevaluation was completed in FY 2024/25.
7615	Develop 2025 Storage Management Plan	$95,184	The scope in FY 2025/26 is greater than the prior year because the majority of the work to complete the 2025 Storage Management Plan will take place in FY 2025/26.
Total		**($669,580)**	

Table 4: Engineering Cost Estimates by Expense Category*
FY 2025/26 Account No(s).

FY 2025/26 Account No(s).	Task	Total Engineering Cost Estimates	Expense Category						
			WY Labor Expense	WY Travel Expense	Equipment Rental	Repro Expense	Equipment Purchases	Lab Expense	Outside Pros
General Optimum Basin Management Program/Judgment Administration		**$ 616,795**	**$ 612,331**	**$ 4,463**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
8306, 8506, 8406, 6206, 6306	Pool, Advisory, Watermaster Meetings	$ 113,121	110,808	2,313	-	-	-	-	-
6901.8, 5901.8	Other General Meetings as Requested	$ 77,818	75,968	1,850	-	-	-	-	-
5935	Material Physical Injury Requests, Other	$ 41,668	41,668	-	-	-	-	-	-
6906.71, 5906.71	Miscellaneous Data Requests - GM/Watermaster Staff	$ 109,124	108,824	300	-	-	-	-	-
6906.72, 5906.72	Miscellaneous Data Requests - Non CBWM Staff/RFI	$ 56,483	56,483	-	-	-	-	-	-
6901.95	Annual Streamflow Monitoring Report - Water Rights Permit 21225	$ 23,596	23,596	-	-	-	-	-	-
6901.95	SGMA Reporting Requirement for WC Section 10720.8 (f)	$ 24,068	24,068	-	-	-	-	-	-
6906	Project Management	$ 65,810	65,810	-	-	-	-	-	-
6906.1	Watermaster Model Application and Required Demonstrations	$ 68,176	68,176	-	-	-	-	-	-
6901.95	Compliance with SWRCB Regulations Regarding Measurement and Reporting Diversion of Water	$ 19,168	19,168	-	-	-	-	-	-
5945	Assist Watermaster in Preparing the 48th Annual Report	$ 17,762	17,762	-	-	-	-	-	-
7100 Program Element 1: Comprehensive Monitoring Program		**$ 1,252,032**	**$ 895,544**	**$ 9,302**	**$ 9,270**	**$ 1,596**	**$ 25,250**	**$ 41,300**	**$ 269,770**
7502, 7505	Groundwater Quality Monitoring Program	$ 283,552	234,022	2,220	6,010	-	-	41,300	-
7104.3, 7104.8, 7104.9	Groundwater Level Monitoring Program	$ 331,922	282,862	5,270	2,790	-	19,000	-	22,000
7402, 7403, 7406, 7408	Ground Level Monitoring Program	$ 345,331	170,923	1,572	470	1,596	6,250	-	164,520
7302, 7306	PBHSP - Monitoring Program	$ 218,583	155,093	240	-	-	-	-	63,250
7202	Review Documents for Chino Basin Recycled Water GW Recharge Program	$ 23,350	23,350	-	-	-	-	-	-
5925	Agricultural Production Estimation	$ 31,992	11,992	-	-	-	-	-	20,000
5965	Support for Implementation of Improved Data Collection	$ 17,302	17,302	-	-	-	-	-	-
7200 Program Element 2: Comprehensive Recharge Program		**$ 181,496**	**$ 180,896**	**$ 600**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
7202.2	RIPComm & GRCC Meetings	$ 181,496	180,896	600	-	-	-	-	-
7300 Program Elements 3 & 5: Water Supply Plan - Desalter		**$ 21,080**	**$ 21,080**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
7303	PE3-5: Engineering Support for Desalters	$ 21,080	21,080	-	-	-	-	-	-
7400 Program Element 4: Mgmt Zone Strategies		**$ 393,687**	**$ 333,292**	**$ 395**	**$ -**	**$ 10,000**	**$ 50,000**	**$ -**	**$ -**
7402	PE4/MZ-1: Data Analyses, Reports, Meetings, and Administration	$ 152,559	142,164	395	-	10,000	-	-	-
7402.1	PE4: Subsidence Management Plan for Northwest MZ-1	$ 241,128	191,128	-	-	-	50,000	-	-
7500 Program Elements 6 & 7: Coop Efforts/Salt Mgmt		**$ 373,712**	**$ 364,927**	**$ 4,085**	**$ 1,200**	**$ -**	**$ -**	**$ -**	**$ 3,500**
7502	PE6-7: As-needed consulting for Plumes and Maximum Benefit Annual Reporting	$ 210,528	208,828	1,700	-	-	-	-	-
7510	Update IEUA's Recycled Water Permit and Water Salinity MP - IEUA Cost Share	$ 19,044	15,444	100	-	-	-	-	3,500
7511	As requested services to support Watermaster in its participation in and review of work performed by the Santa Ana Watershed Basin Monitoring Program Task Force	$ 28,022	27,442	581	-	-	-	-	-
7517	Implementation of Chino Creek Monitoring Program - IEUA Cost Share	$ 76,868	74,214	1,454	1,200	-	-	-	-
7520	Water Quality Management Program	$ 39,250	39,000	250	-	-	-	-	-
7600 Program Elements 8 & 9: Storage Mgmt/Conj Use		**$ 318,848**	**$ 318,048**	**$ 800**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
7610	Develop Storage and Recovery Master Framework	$ 21,720	21,520	200	-	-	-	-	-
7614	Support Implementation of the Safe Yield Court Order	$ 159,312	158,912	400	-	-	-	-	-
7615	Develop 2025 Storage Management Plan	$ 137,816	137,616	200	-	-	-	-	-
Totals		**$ 3,157,650**	**$ 2,726,119**	**$ 19,645**	**$ 10,470**	**$ 11,596**	**$ 75,250**	**$ 41,300**	**$ 273,270**

Notes:

* Total engineering cost estimates include IEUA cost sharing contributions and Carryover