

› COASTAL BRANCH

Water Management Strategies Development

June 17, 2020

**HALLMARK
GROUP**

**PROVOST &
PRITCHARD**
CONSULTING GROUP

SCOPE OF WORK

To meet Central Coast Water Authority (“CCWA”) and San Luis Obispo County Flood Control and Water Conservation District (“SLO County”) identified needs, the following scope of work has been developed. This scope addresses tasks that would be conducted and describes the approach to each task. The scope assumes that there are no specific travel charges and that any meetings would be held through video-conferencing facilities. Any charges for physical travel to assigned meetings would be an additional charge in addition to the proposed budget.

Task 1 – Project Management

This task includes overall project administration, subconsultant management, monthly progress report preparation, and contract administration with the CCWA Program Manager.

This task includes attending a monthly video-conference meetings, one with the Coast Branch Program Managers (CCWA and San Luis Obispo County), “PM Meeting”. Additionally, four meetings will be held with the of Coastal Branch Stakeholders (a representative group of CCWA and SLO County Water Agencies), “Stakeholder Meetings”. The PM meetings will focus on the topics shown under Task 2 through 6. At each PM meeting a presentation will be given on progress and results, draft material for the Stakeholders meetings will be reviewed and comments will be solicited on draft sections and upcoming work. The updated presentations on work status and requests for policy input will be then be presented and discussed at the Stakeholders meeting, and discussion will be used as input to revise and update work products as applicable.

Deliverables:

- Monthly Progress Reports
- Materials and presentations for monthly meetings with Coastal Branch PM Group and for four Stakeholder Groups through July 2021

Task 2 – Review and Summarize Pertinent Rules and Requirements

Applicable regulatory requirements for water management options will be identified. As State Water Project (“SWP”) contractors, the starting point will be CCWA’s and San Luis Obispo County’s SQWP Water Supply Contracts. Currently, these contracts include provisions addressing factors such as storage in SWP facilities and outside a contractor’s service area (Article 56), transportation of non-project water (Article 55), and water transfers and exchanges. Additionally, there are supplemental guidelines (for example Notice to State Water Project Contractors #17-11) that address how the contract is being implemented. A new SWP Water Management amendment is being pursued that would make significant changes to the existing SWP Water Supply Contracts rules that will greatly facilitate implementation of effective water management strategies for agencies such as CCWA. The new amendment, for example, will allow annual or multi-year transfers that have been limited in the past.

In addition to SWP regulations, other agencies have jurisdiction over potential water management actions (such as banking, transfers, and exchanges) that may need to be addressed depending on the actions. These other agencies include the Department of Water Resources, the State Water Resources Control Board, the U.S. Bureau of Reclamation, the Delta Stewardship Council, the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, Groundwater Sustainability Agencies, and County Governments. Depending on the situation, other agencies with jurisdiction could include Integrated Regional Water Management Agencies, any adjudicated groundwater basin Watermasters, and the Regional Water Quality Control Board.

The product of this process will be a concise summary of the regulations that affect different types of water management actions at different locations. The regulations summary will be categorized by different types of management actions that will be considered for ongoing development and implementation of those actions.

Deliverable:

- Technical Memorandum summarizing Rules and Regulations affecting water management options for CCWA and SLO County.

Task 3 – Identify Regional Opportunities and Challenges

The Coastal Branch SWP contractors represent a broad group of existing and potential users of the SWP Table A amounts of San Luis Obispo County and Santa Barbara County. These Coastal Branch Water Agencies have a wide variety of different water management opportunities and challenges. Some have more SWP Table A Amounts than they can use, but lack access to long term storage. Others have storage and demands, but limited conveyance. Concurrent with the documentation of water supply opportunities and challenges on the SWP, the water management capabilities and needs of Coastal Branch water users will be surveyed and documented. These will be summarized into a consistent format and reviewed as draft with the Coastal Branch PMs and the Coastal Branch Stakeholders. The results of this review will be documented in a technical document that can be incorporated into a final report.

Deliverable:

- Technical Memorandum summarizing water management capabilities and needs for Coastal Branch Water Agencies.

Task 4 – Development of Selection Criteria

This task will involve a process to develop local consensus for selection criteria for water management alternatives. The CCWA SOQ identifies many of the criteria that would be appropriate for selecting a project – cost, reliability and control of conveyance, ability to deliver water, ability to return water, water losses and other factors. These factors, and additional potential factors (e.g., water quality, location), will be summarized and reviewed with CCWA and affected stakeholders to develop final selection criteria. At least two meetings (potentially in conjunction with other meetings) will be conducted with CCWA and identified stakeholders to review potential selection criteria, refine the criteria, and settle on the final criteria and appropriate weighting.

Deliverable:

- Selection criteria for reviewing selecting water management alternatives.

Task 5 – Identify Water Management Components

An initial task will be to summarize the water management alternatives that are available to meet CCWA's needs. The alternatives will include physical alternatives (such as a water bank) and operational alternatives (for example, transfers or exchanges with other agencies). A wide range of potential alternatives will be identified, including alternatives in San Luis Obispo and Santa Barbara Counties that have been proposed by local stakeholders, and these will be documented and screened for analysis. Other alternatives located in other parts of the state will be considered, including water banks and exchange programs with other agencies. Options that have been previously developed, but are currently operating at capacity and do not have the ability for additional participation from parties such as the Coastal Branch SWP contractors, like the Kern Water Bank, will not be considered in the analysis. The increased SWP Table A amounts currently being pursued by CCWA through purchase of the Suspended Coastal Branch Table A and through SWP-wide projects such as the Delta Conveyance Facility project will be included as potential water management components along with other identified measures.

Each screened alternative will be described consistent with selection criteria identified in Task 4, including a narrative overview, facilities configuration, capital cost, operating cost, conveyance requirements, total storage capacity, intake conveyance capability, and extraction conveyance capacity.

Deliverable:

- Technical Memorandum describing water management alternatives.

Task 6 – Identify Local and System Capacity Limitations

Conveyance will be needed to the sites to implement certain water management alternatives (both local and remote) and for return of water to the Coastal Branch region (for remote alternatives). The recent capacity assessment of the Coastal Branch Aqueduct prepared by WSC is helpful in this regard because it identifies existing and potential capacities for delivering water within San Luis Obispo and Santa Barbara Counties that are in excess of the design capacity level. Access to increased capacity for the Coastal Branch downstream of Polonio Pass Treatment Plant ("PPTP") will also necessitate possible modifications at PPTP to provide the higher capacities identified. Coastal Branch capacity upstream of the PPTP is generally available for the reaches downstream of Devils Den Pumping Plant ("DDPP") due to the higher capacity designed into those reaches to optimize power operations. Capacity in the Coastal Branch reaches upstream of the DDPP and in the California Aqueduct will be quantified based on recent operational capacity (reflecting impacts of subsidence) and historical delivery patterns for other water users.

Capacity in the California Aqueduct and other conveyance facilities needed for water management alternatives, such as water banks, will be quantified for the period of interest. For example, the ability to store carryover water later in the year will depend on the use of facilities by other water managers and

the relative priority of a CCWA alternative as compared to other SWP water users. The intent of this review will be to confirm that conveyance for recharge water is available during high demand periods when it is most needed. A similar analysis will be performed for conveyance to return water from a water bank, exchange, or some other type of water management alternative. Experiences during recent drought periods demonstrated that there can be limited capacity to return water by instantaneous exchange (for projects such as groundwater storage downstream of the Coastal Aqueduct) during extreme drought periods when the water is needed.

Task 7 – Quantify SWP Supply Capability

A primary goal of the evaluation will be to align the local demands with available SWP water supplies and water management alternatives. The primary source of SWP water supply information will be CALSIM reservoir operations studies for different assumptions about future regulatory conditions, facilities, and climate conditions. CALSIM studies will be obtained for monthly deliveries to SWP contractors for use in evaluations. Initially, these study results for Table A, Article 56, and Article 21 Water will be computed for San Luis Obispo and Santa Barbara Counties based on their Table A allocations. These monthly results will also be summarized annually for use in the management alternatives.

Adjustments to CALSIM operations based on recent historical operations will be identified and applied to CALSIM results as an alternative for analysis that may improve the utility of the results. The result of the SWP water supply analysis will be tables showing monthly and annual amounts of various types of SWP water available for San Luis Obispo and Santa Barbara Counties, as well as for other SWP contractors (outside of the Coastal Branch) that may be partners in water management alternatives such as banking, exchanges, or transfers.

Task 8 – Evaluate and Select Management Alternatives

The water supply and conveyance information identified in Tasks 6 and 7 will be combined with demand information for Central Coast Water Agencies to evaluate individual and combined water management alternatives. From three to ten different water management alternatives will be evaluated on an annual basis to quantify their performance for meeting Central Coast water users water needs. The evaluation will quantify the minimum level of deliveries, average level of deliveries, storage in banking sites, cost, and other parameters to be considered in the selection criteria. The use of annual operations analysis for the evaluation will be reviewed early in the process to determine its adequacy. If that approach is not adequate to meet CCWA planning needs, then a specific proposal for more detailed analysis will be presented to CCWA for their consideration.

The raw water supply benefits of water management components, including the Suspended Coastal Branch Table A purchase, will be quantified as will the benefits and associated costs of broader range of water management measures. The performance of the various management alternatives will be reviewed with CCWA and appropriate stakeholders to identify the best individual alternative or combination of alternatives. It is also possible that refinements to the alternatives can be developed based on feedback from CCWA and stakeholders. The completed result of this task will be an approach for water management options that meets CCWA needs in the most effective manner.

Task 9 – Prepare Water Management Strategies Summary

Based on the evaluation of identified water management alternatives using the selection criteria, a report will be prepared for the Coastal Branch that summarizes the selected water management alternatives. The summary will identify the roles of additional water supply alternatives as well as management measures such as conjunctive use, water transfers and water purchases, in meeting Coastal Branch water management challenges.

Deliverable:

- Report describing selected water management alternatives and approach to integrating those alternatives to meet overall water supply and financial objectives.

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