

November 11, 2020

Attention: Imported Water Committee

Regional Conveyance System Study - Phase B. (Action)

The purpose of this memo is to provide the Board the outcome of the Board-directed outreach process conducted over the past three months on the Regional Conveyance System Study (RCSS) Phase A results. The memo also outlines feedback from member agencies and other stakeholders and staff's recommended Phase B scope and revisions in response to the input received. This information aims to help further inform the Board's decision on Phase B.

Staff Recommendation

- A. Transfer \$452,000 within the Capital Improvement Program (CIP) Lifetime Budget from Pipeline 6 to the RCSS for an overall net zero impact to the CIP to address feedback received during the Board-directed three-month outreach process; and
- B. Authorize the General Manager to execute Amendment 2 to the professional services contract with Black & Veatch Corporation (BV) for a period of 18 months, in the amount of \$622,000, increasing the authorized cumulative contract amount from \$1,890,000 to \$2,512,000; and
- C. Authorize staff to implement the revised Phase B scope of work for the RCSS.

Alternatives

- 1. Authorize staff to implement the existing Phase B scope of work for the RCSS at no additional cost. This alternative would not address feedback received during the Board-directed three-month outreach process.
- 2. Do not authorize proceeding to RCSS Phase B.

Fiscal Impact

Staff's recommendation to transfer \$452,000 within the CIP Lifetime Budget from Pipeline 6 to the RCS will result in an overall net zero impact to the CIP. Funds are available in the fiscal years 2020 and 2021 CIP appropriation. The approval of Phase B as recommended by staff would be an estimated expenditure of \$1,752,000. The rate category for this project is customer service.

Executive Summary

- The Water Authority currently receives delivery of its low cost, highly reliable QSA supplies through an Exchange Agreement with the Metropolitan Water District of Southern California (MWD), which expires in 2047 for the Imperial Irrigation District (IID) Water Transfer.
- In 2047, the initial term of the IID Water Transfer ends but may be extended to 2077 by mutual consent of the parties. The cost of using MWD facilities to deliver the Water Authority's QSA water has increased 30% over the last five years.
- To date, the Water Authority has been unable to negotiate an acceptable long-term Exchange Agreement with MWD in order to manage future cost and risk.
- In June 2019, the Board approved a \$3.9 million capital budget for a new two-phase study to expand upon past studies of an alternative water delivery system with a focus on controlling and reducing long-term costs and risks.
- In July 2019, the Board authorized a professional services agreement with BV totaling \$1,890,000 for Phases A and B.
- Phase A scope was completed in August 2020 with a focus on engineering and costs and demonstrated that the Regional Conveyance System (RCS) is technically viable, and economically competitive.
- In August 2020, the Board approved the General Manager's recommendation to defer the Phase B decision to November, perform additional outreach and hear from all interested parties, and allow expenditure of up to \$200,000 of Phase B funds for such activities. The primary question to be addressed during this period was the respective analyses and comparison of the MWD and RCS alternatives by Water Authority and member agency consultants.
- Based on Phase A results and member agency and stakeholder feedback, staff is recommending proceeding with Phase B with a revised scope for an additional cost of \$452,000.
- Phase B would focus on economic analysis of the two conveyance alternatives as well as explore partnerships, take 15 to 18 months to complete, and include another offramp at the end.

Background

Since the Water Authority does not have a pipeline or aqueduct to the Colorado River to convey its 280,000 acre-feet of QSA supplies to the San Diego region, it pays MWD to deliver these supplies via an Exchange Agreement that expires in 2047 for the IID transfer water and 2112 for the canal lining water. The cost of using MWD facilities to deliver the Water Authority's QSA supplies has increased 30% over the last five years. In November 2019, MWD informed the Water Authority that continued use of its Colorado River Aqueduct would cost San Diego ratepayers between at least \$12 billion (assumes no IID transfer agreement extension) to \$18 billion (assumes IID transfer agreement extension only through 2077) between now and 2112. In either instance, MWD would deliver canal lining water through 2112. Assuming an IID transfer agreement extension through 2112, staff estimated the MWD alternative to cost approximately \$27.6 billion (2020\$). Though, note that to date, the Water Authority has been unable to negotiate an acceptable long-term Exchange Agreement with MWD in order to manage future cost and risk.

In June 2019, the Board approved a \$3.9 million capital budget for the RCS two-phase study to build upon previous work contained in the Regional Water Facilities Optimization and Master Plan in order to identify a potential long-term alternative for conveyance of the Water Authority's QSA water.

The current study includes key areas that have not previously been assessed to determine feasibility, such as integration of the RCS into the Water Authority's aqueduct system. Furthermore, the current study also looks at the RCS through a new lens of potential partnerships and multi-benefit facilities along each of the conveyance routes that could yield benefits to multiple stakeholders in the Southwest, in alignment with Governor Newsom's recently finalized Water Resilience Portfolio.

Table 1 shows the June 2019 Board approved Phase A and B scope of work for BV, other consultants, and Water Authority staff for technical and financial analysis of the RCS. This scope was shaped by input from the Colorado River Work Group, Board, and Member Agency Managers (MAM).

Table 1: Final Scope of Work By Phase

Phase A (\$2.6M)		Phase B (\$1.3M)	
BV (\$1.89M)			
<u>Update/Refine</u>		<u>Update/Refine</u>	
<ul style="list-style-type: none"> Northern Alternative 3A System integration Multi-use, partnerships & funding opportunities Demand forecast – 2015 Urban Water Management Plan (UWMP) 2018 Interim Demand Forecast Reset Treatment, blending & brine management Permit & environmental requirements Risk analysis - Qualitative All-In costs for preliminary economic analysis Initial screening of alternatives 		<ul style="list-style-type: none"> Partnership structures/funding Project delivery methods Property requirements Demand forecast – 2020 UWMP Conveyance alignment & tunneling Site layouts Geotechnical desktop study Risk analysis - Quantitative All-In cost for economic analysis Final screening of alternatives 	
Water Authority Staff and Consultants (\$2.01M)			
<ul style="list-style-type: none"> BV technical analysis support BV preliminary partnership analysis support Preliminary economic analysis 		<ul style="list-style-type: none"> BV technical analysis support Potential partners engagement Partnership and funding opportunities quantification Economic and sensitivity analyses Legal agreement reviews Stakeholder outreach 	

Phase A was completed in August 2020 with an objective to identify any technical or financial fatal flaws before investing additional time and funds to perform more extensive economic, legal, and partnership opportunity analyses and stakeholder outreach included in Phase B scope. Phase A results demonstrated the RCS is technically feasible and cost competitive with the

MWD alternative even without partnerships or grant funding. No technical or financial fatal flaws were identified for any of the conveyance routes. This conclusion was informed by both Water Authority staff and consultants' analyses. The detailed reports can be found on the Water Authority's website at <https://www.sdcwa.org/colorado-river-supplies-management>. The Water Authority consultants and the consultants hired by some of the member agencies confirmed that the RCS is technically feasible and the Phase A technical analysis and estimate of project capital and operation, maintenance and replacement costs are reasonable.

At the August 27, 2020 Board meeting, staff presented the Phase A technical and economic analyses as well as an evaluation of a member agencies' consultant report. The Board approved the General Manager's recommendation to defer a decision on Phase B until November 2020 to allow time to further inform a future board action through the sharing of information and further dialogue with member agencies and other key stakeholders, primarily on the question of the respective analyses and comparison of the MWD and RCS alternatives by Water Authority and member agency consultants. The Board action authorized an expenditure of up to \$200,000 of Phase B funding to cover consultant and staff costs associated with the additional activities.

Previous Board action: On August 27, 2020, the Board approved the General Manager's recommendation to defer a decision on Phase B until November 2020 to provide time for additional dialogue with member agencies and outreach to stakeholders, as outlined in the General Manager's letter, dated August 24, 2020, in a not to exceed amount of \$200,000 of Phase B funding.

Discussion

Over the past three months, as directed by the Board, Water Authority staff and consultants engaged in extensive additional briefings and outreach on RCSS Phase A results and consultant reports to ensure the full exchange of information and viewpoints based on facts and data in a fully transparent process. This outreach process resulted in a better understanding of the Phase A scope and the opportunity to receive stakeholder input on yet to be completed Phase B items.

Briefings and Outreach

Outreach was conducted in various forums to engage the Board members, Member Agencies, other local stakeholders, the Imperial Valley, and Borrego Springs.

Water Authority Consultant Briefings:

Since August, Dr. Rodney Smith with Stratecon Inc. and Robert Campbell with Water Resources Consultants (WRC) met with several of the member agencies, their respective Water Authority Board member(s), staff for the member agency, and in some cases the full member agency board. Water Authority staff did not participate in these meetings. The purpose of these briefings was for the consultants to provide an overview of their reports and answer questions. While there is considerable interest in the need to explore RCS opportunities, concerns shared at these meetings under either alternative included cost impacts to ratepayers, sensitivities in Water Authority and MWD demand forecasting, additional local supply development opportunities including reuse and stormwater capture, and treatment costs associated with the RCSS. Takeaways from these meetings was the potential to augment Phase B scope to address these issues in greater detail.

Economic Workshop:

On October 27, the Water Authority hosted a virtual workshop focused on the Phase A preliminary economic review of the conveyance alternatives. The purpose of this session was to allow attendees to:

1. Learn about the two transportation alternatives the Water Authority Board is studying to secure cost-effective delivery of QSA supplies into the future;
2. Ask Water Authority consultants about key economic issues addressed in the reports; and
3. Discuss potential next steps.

This format allowed the public to hear directly from independent economists and ask additional questions. The session was moderated by Cindy Gompper-Graves, retired President and Chief Executive Officer of the South County Economic Development Council. The Water Authority's consultants Dr. Rodney Smith with Stratecon Inc. and Robert Campbell with WRC served as panel members. Kevin Davis, Vice President of BV, the Water Authority's consultant responsible for the Phase A technical and cost analysis, attended to answer any cost-related questions. In alignment with the discussion at the August 27, 2020 Board meeting, the Water Authority invited the MAM consultants, DLM Engineering, Inc. and Gillingham Water, Planning and Engineering, Inc. (DLM&G) to participate as panel members. DLM&G declined to participate because their contract had ended and suggested the Water Authority both hire and indemnify them as a condition for their participation. The Water Authority did not deem this to be appropriate. The session had over 120 participants and over 80 questions were posed on various related topics, including IID and MWD agreement issues, the member agency consultant study, MWD and Water Authority rates, risk assessment, partnerships, and cost estimates. Responses to as many questions as possible were provided during the session as time permitted. Written responses to all the question provided by Stratecon, WRC, and BV along with the presentation and recording of the session are posted on the Water Authority's website at: <https://www.sdcwa.org/water-authority-hosts-public-sessions-regional-conveyance-study>. A key outcome of this session was the identified need to conduct a more robust economic and risk discussion to supplement the preliminary Phase A analysis.

Local Briefings and Outreach:

In addition, Vice Chair Guerin, Water Authority staff, and BV had a conversation with San Diego Coastkeeper and listened to perspectives on local water supply issues. The discussion included prioritization of local supply development beyond planned projects and specifically the need to further analyze additional reuse and stormwater capture. Based on prior public testimony and all of these discussions, staff is recommending revisions to the Phase B scope of work to include analyses of items such as quantifying wastewater in the region as it relates to reuse, stormwater events, infrastructure needs, and jurisdictional issues. Additionally, based on comments received pertaining to water rate affordability and equal access to water for disadvantaged communities, staff recommends including this issue as part of a future Legislative and Public Outreach Committee meeting discussion item in 2021. Specifically, staff recommends that as part of the Water Authority's legislative outreach program for 2021 within the State Legislature and Congress, the Water Authority be actively engaged in efforts to pursue direct

financial relief for water ratepayers, particularly focused on lower-income families and disadvantaged communities that have faced disproportionate impacts as a result of the economic crisis exacerbated by the COVID pandemic.

Imperial Valley:

Outreach in Imperial Valley pertaining to the RCSS included meetings with various stakeholders including IID, farming groups, and others.

On September 22, staff and BV presented an RCSS update to the IID Board virtually. IID Board members expressed support for continued collaboration should the study advance to Phase B, including the potential for shared-storage to address capacity constraints within IID's canal system and determining how the project might attract renewable energy development at the Salton Sea. Staff also discussed the tenets contained in the August 2020 Water Authority's letter to IID:

- Protection of the Salton Sea is important and goes hand-in-hand with Colorado River water conservation.
- The foundation of the Water Transfer Agreement is that it be mutually beneficial, which is why there is an opportunity to extend it beyond 2047 if both parties agree.
- The Water Authority would not pursue an increase in the amount of QSA water it receives through the IID Water Transfer or Canal Lining Projects (280,000 acre-feet/year) either through the extension of the transfer term or implementation of the RCS, if constructed.
- There would be no negative impact to farming operations as a result of the RCS.

On November 3, staff and BV attended a virtual meeting with the Imperial County Farm Bureau Board to address Farm Bureau questions on the RCSS. Discussion during the meeting included the potential impact of the RCS on the capacity within IID's canal system, the potential for additional transfers from the valley, water rights issues and matters related to a term extension of the transfer. Staff also conducted a number of one-on-one virtual meetings with various Imperial Valley stakeholders, including members of the farming community, Imperial County staff, business representatives and environmental justice leaders. A common theme from these meetings was continuing discussions, should the study advance to Phase B, to develop a better understanding of how the project could benefit the Imperial Valley.

Borrego Springs:

On November 5, the Water Authority hosted a virtual public forum specific to the Borrego community. The purpose of the session was to allow attendees to:

1. Learn about route alternatives the Water Authority Board is studying to deliver QSA supplies into the future;
2. Hear expert panel discussion of key issues pertaining to Borrego Springs;
3. Understand more about development of a conveyance system; and
4. Discuss questions, answers and next steps.

The session, which was moderated by Water Authority staff, included four panel members; Kevin Davis, Vice President of BV, Françoise Rhodes, executive director of Borrego Springs Chamber of Commerce, David Garmon, president of Tubb Canyon Desert Conservancy, and Dick Troy, board president of Anza-Borrego Foundation. The session had over 50 participants with over 80 questions received on various topics, with a focus on potential environmental, economic, and construction impacts on the community, including on residents, businesses, parks, and groundwater basin. Responses to as many questions as possible were provided during the session as much as time permitted. Written responses to all the questions along with the presentation, recording of the session, and a matrix of responses to issues outlined in stakeholder letters received to date are posted on the Water Authority's website at <https://www.sdcwa.org/water-authority-hosts-public-sessions-regional-conveyance-study>. A key outcome of this forum was valuable input to be considered in Phase B and further discussed with the Borrego community. Although California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) review is not part of Phase B, based on the input staff is recommending that an environmental constraints analysis be added to Phase B to help address community concerns.

Other Stakeholders:

Water Authority staff was invited to present on the RCSS to various groups over the past three months. These groups included the Colorado River Board of California, San Diego Building Industry Association, and California Water Commission. Additionally, a virtual meeting was held on November 4 with California Natural Resources Deputy Secretary Tom Gibson and Assistant Secretary Arturo Delgado, in charge of Salton Sea Policy, to discuss the RCSS Phase A results and potential benefits to the Salton Sea. Both state officials expressed their interest in continued dialogue.

Discussions with Member Agency Managers:

Over the past several weeks Water Authority staff has continued to meet with the MAM as a group and on a one-on-one basis to answer questions and receive additional input on Phase B. In addition to the questions already identified in the report prepared by DLM&G, two additional requests have emerged that staff recommends be further integrated into Phase B. First is the desire to have additional wet/dry year sensitivities conducted regarding future Water Authority demands. Upon the completion of the 2020 Urban Water Management Plan (UWMP) Update in the summer of 2021, staff will work with the MAM on this request and incorporate the results into the final Phase B work product. The other area of concern involves various contractual matters related to the IID water transfer. Staff agrees this should be a priority in Phase B discussions.

Existing Phase B Scope

Table 1 summarizes the elements of the existing Phase B scope. Generally, Phase B would focus on economics, partnerships, legal analysis, stakeholder outreach, to help answer questions about mitigating short-term rate impacts, the positive affect of partnerships and funding and grant opportunities, developing a plan of finance, and a review of existing agreement requirements.

The economic and risk analysis planned for Phase B on the MWD alternative would include analysis of the historic increases in MWD's water rates and charges and planning assumptions going forward; evaluation of the reliability of MWD's current and proposed future water supplies; review of true costs and water yield of MWD's current and planned projects and assess impact on MWD water rates and charges and their contribution to the reliability of MWD future water supplies; projection of the source and amount of future demand for MWD's water; and evaluation of other MWD rate drivers to facilitate update of the forecast tool of MWD's water rates and charges. The same rigorous analysis would be applied to Water Authority rate and cost projections.

Staff would begin engaging with entities on potential partnership projects identified in Phase A such as public-private-partnerships, bi-national projects, renewable energy projects, regional operational storage projects, Salton Sea-related projects, and partnerships with tribes, federal and state governments, and member agencies. For instance, the Water Authority would initiate detailed discussions with IID on potential shared facilities and a water transfer agreement extension. In this regard, Phase B would entail an extensive legal analysis of the implications of the RCS on QSA and associated water rights issues. Outreach with stakeholders would continue.

Staff Recommended Additions to Phase B Scope

Based on input received during the outreach activities, additional items were identified for inclusion in Phase B. Table 2 summarizes these items and the associated costs of the Phase B scope that would be completed by BV:

1. An environmental constraint analysis for major resource areas including biological, cultural, tribal, and land use, and planning for a future CEQA/NEPA process;
2. The study of alternative cost effective treatment strategies that takes advantage of in-county potable reuse and desalination projects that re-opens the blending concept option;
3. The assessment of new local water supply development projects to augment existing and planned supplies - reuse;
4. The assessment of new local water supply development projects to augment existing and planned supplies - stormwater capture;
5. Additional sensitivities associated with Water Authority demands, following publication of the Water Authority's 2020 UWMP Update.

Table 2: Phase B BV Scope Adjustment and Costs By Recommendation and Alternatives

Scope item	Staff Recommendation	Alternative 1 (Implement Existing Scope)
1. Environmental Constraints	\$105,000	
2. Treatment Analysis	\$116,000	
3. Water Reuse/Local Supply Analysis	\$276,000	
4. Stormwater Capture Feasibility Study	\$75,000	
5. Additional Demand Sensitivity Analysis	\$50,000	
Subtotal	\$622,000	
Phase A Savings	(\$170,000)	
Total	\$452,000	\$0

Attachment 1 provides a detailed description of the items outlined in Table 2.

Staff Recommendation

Based on Phase A results and additional outreach conducted, staff recommends continuing to Phase B with scope revision to address stakeholder input and to further inform the study work. The additional fiscal impact of the staff recommendation is \$452,000, after accounting for the \$170,000 Phase A savings due to project management efficiencies. Staff's recommendation increases the Phase B budget requirement from \$1,300,000 to \$1,752,000. Note that the three-month public outreach costs were less than anticipated, at approximately \$100,000, and funded by the remaining Phase A budget, maintaining the full Phase B budget for this scope. To fund this additional work, a project budget increase would be required. Therefore, staff is also recommending a transfer of \$452,000 within the CIP Lifetime Budget from Pipeline 6 to the RCSS for an overall net zero impact to the Capital Improvement Program. The Pipeline 6 budget is not projected to be required until after 2035, in accordance with the current 2013 Water Facilities Master Plan. The upcoming 2023 Water Facilities Master Plan Update will reevaluate the need for Pipeline 6 and, if required, a future budget increase will be recommended. As a result of staff's recommendation, the existing RCSS budget would increase from \$3,900,000 to \$4,352,000 for both phases.

Since BV would be performing this additional work, staff recommends the Board authorizing the General Manager to execute Amendment 2 to the professional services contract with BV for a period of 18 months, in the amount of \$622,000, increasing the authorized cumulative contract amount from \$1,890,000 to \$2,512,000. Amendment 1 was a no cost administrative amendment that extended the term of Phase A to accommodate delays to the Board action on Phase B. As discussed above, separate from today's recommended actions, based on comments received pertaining to water rate affordability and equal access to water for disadvantaged communities, staff recommends including this issue as part of a future Legislative and Public Outreach Committee meeting discussion item in 2021.

If the Board approves staff's recommendation, Phase B is anticipated to take between 15 and 18 months to complete. At the end of Phase B, there would be another offramp for the Board to consider the additional information and analysis, and any potential next steps. During the course of Phase B work, staff would provide updates to the Board.

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Dan Denham, Deputy General Manager
Approved by: Sandra L. Kerl, General Manager

Attachment:
(1) Phase B BV Scope Adjustments

ATTACHMENT 1

Phase B BV Scope Adjustments

1. Environmental Constraints Analysis (\$105,000)

- Biological Resources Constraints Desktop Analysis - GIS Layers
- Cultural Resources Constraints Desktop Analysis - GIS Layers
- Tribal Resources Constraints Desktop Analysis - GIS Layers
- Land Use Constraints Analysis Desktop Analysis - GIS Layers
- Planning Constraints Analysis Desktop Analysis - GIS Layers
- Discussions with Resource Agencies

2. Treatment Analysis (\$116,000)

- Assess Blending Opportunities in San Diego County with Indirect Potable Reuse (IPR) Water
- Assess Areas of Delivery Without Blending Potential And Water Quality Impacts
- Define Impacts of Increased Total Dissolved Solids (TDS) at Delivery Points in Water Authority Aqueduct System
- Define Additional San Diego Region RCS Treatment Requirements
- Prepare Concept Level Definition of San Diego Facilities Needed
- Prepare Concept Level Cost Estimates for San Diego Facilities Needed
- Prepare Concept Level Operational Costs for San Diego Facilities Needed
- Prepare Implementation Schedule for San Diego Facilities Needed

3. Water Reuse/Local Supply Analysis (\$276,000)

- Assess Potential Wastewater Accessible Through 2045
- Assess Total IPR/non-potable reuse (NPR) Supply Potential Through 2045
- Prepare Concept Level Definition of IPR/NPR Supplies Through 2045
- Assess Potential Non-Wastewater Supply Options Through 2045
- Prepare Concept Level Definition of Local Ocean Desal
- Prepare Concept Level Definition of Local Brackish Groundwater Desal
- Prepare Concept Level Cost Estimates for Local Supply Development
- Prepare Concept Level Operational Costs for Local Supply Development
- Prepare Implementation Schedule for Local Supply Development

4. Stormwater Capture Feasibility Study (\$75,000)

- Goals and Criteria Workshop
- Low Flow Diversion Strategy
- Statistical Analysis of Stormwater Capture Opportunities
- Future Study Requirements
- Summary Document

5. Additional Demand Sensitivity Analysis (\$50,000)

- Goals and Criteria Workshop
- Probabilistic Wet-Year/Dry-Year Analysis of Project Flows
- Evaluation of Storage Opportunities Within the Water Authority's System
- Impacts to Cost Estimates Based on Demand Scenarios
- Demand Management Strategy Development