Regional Conveyance System Study (RCSS)

Borrego Springs Stakeholder Comment Summary and San Diego County Water Authority (SDCWA) Response Matrix by Organization

	Stakeholder Comment	Area of Concern	SDCWA Response
	A) Borrego Water District Board letters, dated August 12, 2020, and September 22, 2020		
A1	Proposed RCS as a solution to the Borrego Springs Subbasin's critical overdraft situation and impact on municipal water rates is tenuous at best, as no economic study has been developed nor presented to BWD for review. Additional hydrological and economic study would be required before BWD Board could support a conjunctive use in the Borrego Springs Subbasin.	Partnerships	Noted. RCSS Phase A engineering and costs analysis did not identify any technical or financial fatal flaws. There is no assumption of a partnership with Borrego or any other partnerships as SDCWA has not yet engaged with potential partners. Phase A assumed that SDCWA would construct, own, and operate the Regional Conveyance System (RCS) with no outside or partnership funds. If the RCS Study moves to Phase B, a robust economic analysis will be performed to inform the SDCWA Board of Directors and support long-term water planning decisions. Additionally, outreach to stakeholders and potential partners will be initiated in Phase B. Based on those discussions, If a partnership is developed between any willing partners, details of the agreement would need to be worked out as part of subsequent phases to Phase B. Note use of the Borrego Springs Subbasin is not part of the scope of the proposed project.
A2	Colorado River water contains numerous toxins (some known MCL contaminants, some being regulated in other states and countries, and some are being considered for future regulation in CA) that are impossible to remove with common advanced treatment technologies and may adversely affect the beneficial use of subbasin groundwater and impact BWD infrastructure. Would BWD be willing to assume financial risk of adding new contaminants to the subbasin should be based on data and not opinion.	Partnerships	Noted. Please see response to comment A1. Additionally, if the project moves forward, appropriate California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) review would be conducted in future phases following Phase B, which would analyze all environmental considerations, including water quality.
A3	Structural integrity of the subbasin; certain time and quantity conditions for storage and withdrawals of IID water could result in compaction and subsidence in Borrego. No amount of hydrological study can with 100% confidence render such	Partnerships	Please see responses to comments A1 and A2 above. Additionally, structural integrity of the Borrego Springs Subbasin could be studied, if a partnership is developed and that partnership included storing water in the Borrego Springs Subbasin.

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	an outcome. Such a claim would not be reliable science but merely wishful thinking.		
A4	No discussions of the community support have yet occurred, been told by SDCWA that will be part of Phase B.	Outreach	Noted. Stakeholder outreach was always planned to be part of Phase B based on Phase A results, if authorized by the SDCWA Board of Directors. However, SDCWA staff presented twice to the Borrego Water District Board to update them on the study work. A community forum specific to Borrego was also hosted by the SDCWA on November 5, 2020.
A5	BWD support as a partner agency should not be assumed. Not enough information to support or oppose the proposed project but are in support of moving forward with continued studies of Alternative 3A because project could be mutually beneficial. It is our understanding that the Water Authority believes a partnership with BWD could be beneficial and provide a cost-effective source of supply through: 1) store GW in the Borrego Springs Basin, 2) use the water directly for either non-potable uses or the send to new BWD treatment facilities. The Water Authority lacks a full understanding of what is presently economically viable for BWD. Construction cost for conjunctive use could be beyond the capacity of BWD to finance. It is unclear whether any net positive economic benefit would accrue to BWD for an investment in conjunctive use.	Partnerships	Noted. Please see responses to comments A1 and A2 above.

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A6	BWD Board believes following types of data is needed to assist with a decision to support RCS Alternative 3A: 1) Possible conjunctive uses (partner with the Water Authority to supply raw water for future potable use, or potential for use of the Borrego Springs Subbasin for Water Authority storage) 2) Water quality study 3) potential for a required subbasin anti-degradation analysis (possible adverse effects on the physical structure of the aquifer; damage to the structure would be irreparable) 4) Economic Study 5) address concerns of pipeline route crossing major earthquake faults 6) address proposed access to pipeline if it is constructed under State Park Wilderness and Cultural Preservers 7) Potential impacts to ABDSP and Borrego Springs tourism.	CEQA/NEPA	Noted. Please see responses to comments A1, A2, A3, and C4. Issues identified by the stakeholders would be addressed during an environmental process, should the study reach that phase, and should route 3A be selected as preferred alternative. If the project moves forward, appropriate CEQA/NEPA review would be conducted in future phases following Phase B, which would analyze all environmental considerations, including potential land use, cultural resources and community impacts.
	B) Borrego Village Association letter, dated October 17, 2020		
B1	Impacts from noise, traffic, dust, scenic blight, scenic resources and other disruptions associated with 15-year construction period and long-term operation of the pump stations and its impact on tourist appeal and tourism economy.	CEQA/NEPA	Noted. RCS is in an early feasibility level analysis, which means no facilities have been designed. RCS Phase A was a technical and financial fatal flaw study. The potential impacts from any future project alignment, project component, and/or construction methodologies will be analyzed if authorized by the SDCWA Board of Directors, in subsequent phases. Appropriate CEQA/NEPA review would be part of phases subsequent to Phase B, which would adequately analyze potential impacts on all environmental factors and identify appropriate recommendations to avoid or minimize potential impacts on sensitive resources.
B2	Impact of construction and operation of the proposed facilities affecting the health and survival of the native plant and animal species that draw visitors to the area.	CEQA/NEPA	Noted. Please see responses to comments B1 above.
B3	By 2040, Borrego will be a sustainable watershed with adequate water to provide for visitors and residents and allow for reasonable economic and population growth. What are the planning assumptions regarding the amount and proposed uses for this extra water? What are the specific	Partnerships	Noted. Please see responses to comments A1 and A2 above.

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	costs and how would Borrego pay for the construction and any future supplies?		
B4	Water currently consumed in Borrego comes from an ancient Pleistocene aquifer and does not require treatment. Colorado River water would require extensive treatment prior to use in Borrego Springs not comparable to the current level of water quality.	Water Quality	Noted. Please see response to comment A2 above.
	C) Anza Borrego Foundation (ABF) letters, dated August 2020 and October 20, 2020		
C1	Both 3A and 5A traverse across and/or drilling under ABDSP (United Nations-designated Mojave and Colorado Desert Biosphere Reserve) prohibits permanent improvements in State Wilderness and that all resources, including geological, are to be protected. ABDSP General Plan calls for protection and restoration of sustainable and ecologically functional watersheds and groundwater basin. PRC 5019,74 calls for protecting the complete integrity of Cultural Preserves and that structures or improvements that conflict with that integrity are prohibited.	CEQA/NEPA	Noted. Please see response to comment B1 above. Potential impacts in State Parks and Wilderness areas would be avoided to the greatest extent feasible through tunneling which would result in potential impacts that are anticipated to be minimal. Additionally, it should be noted that there have been significant advancements in tunnel drilling, lining, and grouting technologies in recent years, mainly to prevent potential negative impacts to groundwater. These advanced techniques will be evaluated when design is initiated in subsequent phases to Phase B.
C2	Impacts to Geo-tourism and visitor-generated revenues due to unknown visual, sound, light produced by decade-long construction phase and operation of future pump stations needs to be assessed. Also, impacts to the park, local residents, San Diego, and imperial Counties (including the Salton Sea) is being put off to a later date, so extent of these impacts is unknown. Thousands of tons of debris from the tunneling and impact of transporting it. Tunnel boring machines need significant quantities of water for dust control, cooling cutting heads, etc. Need for water during construction and where will it come from. Limited water resources near the Tubb Canyon Portal	CEQA/NEPA	Noted. Please see responses to comment B1 above.

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C3	Stipulated agreement regarding the community's water supply and allocation is expected to be approved within months. This agreement will guarantee a sustainable water supply from our local aquifer by 2040, while providing enough water for reasonable economic growth. To burden a community, which has worked so hard to resolve its own water issues, with a massive water project that has no relation to the community, seems unfair.	Partnerships	Noted. Please see responses to comments A1 and A2 above.
C4	Proposed tunnel crosses 8 active faults and 3,500 feet below the surface. Impacts of the tunnel on the environment and vice versa, must be rigorously studied.	CEQA/NEPA	Correct. Please refer to subsection entitled "Faults" of Section 2.4.7 of the Regional Conveyance System Study – Phase A dated August 2020 prepared by Black & Veatch. This subsection describes the special considerations that would need to be made to construct tunnels through fault and fault zone areas, an excerpt of which is as follows: "Specialized designs would be developed for fault crossings [to mitigate the potential for damage (breakage) caused by earthquakes]. These designs could include, but are not limited to: 1) over-excavation or enlargement of the tunnel to provide for future movement of the fault where the tunnel crosses the fault; 2) filling of the annular space between the initial tunnel excavation and the exterior of the tunnel final lining with low strength material such as cellular concrete; 3) grouting the faulted ground to increase the strength and ductility of the faulted ground; and/or 4) using flexible joints to increase the longitudinal flexibility of the tunnel final lining." Phase B and subsequent phases would evaluate this at a deeper level. Please also see response to comment 1B above for potential environmental impact of tunneling.
C5	The lower-quality Colorado River water would require costly treatment to ensure no adverse water quality impacts or damage to the local Borrego aquifer.	Water Resources	Noted. Please see response to comment A2 above.
C6	Plan for meeting with representatives from the various nearby Native American communities to learn of their concerns regarding impacts on lands of spiritual and cultural significance. Request ABF as the official partner of the State	Outreach	Noted. Stakeholder outreach was always part of Phase B based on Phase A results, if authorized by the SDCWA Board of Directors. Appropriate CEQA/NEPA review would be part of phases subsequent to Phase B, including coordination and notification of

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	Park and be consulted as a stakeholder in further deliberations on the project.		tribal communities that are traditionally or culturally affiliated with the RCS geographic area in accordance with the AB 52 process.
	D) ABF October 20, 2020 Attachment, Determination of Fatal Flaw		
D1	CEQA requires that environmental considerations not be concealed by focusing on isolated parts, overlooking the cumulative effect of the whole action. In the seven reports available on SDCWA website, adequate information is not provided to assess the proposed project impacts to Borrego Springs, and the Park. Therefore, determination of "no fatal flaws" cannot be made without clear project description as required by CEQA. Some examples are the 10-mile power line through the park, East Tunnel Portal in Tubb Canyon, deal with waste rock from tunneling.	CEQA/NEPA	Noted. Please see response to comment B1. RCS Phase A was a technical and financial fatal flaw study. If authorized by the SDCWA Board of Directors Phase B would include an Environmental Constraints Analysis to identify any potential environmental considerations that would preclude future phases of RCS development. Potential impacts in State Parks and Wilderness areas would be avoided to the greatest extent feasible through tunneling which would result in potential impacts that are anticipated to be minimal.
D2	Kleinfelder Geotechnical report discusses pressure gradients for tunnels at submerged depth of 2,000 feet, but the proposed project tunnel is at greater than 3,000 feet. Does this mean that the proposed tunnel is 50% deeper than any other completed tunnel? Tunnel is proposed at greater than 3,000 feet deep.	Technical	There are numerous tunnels around the world are much deeper than the proposed RCS, most notably the Gotthard Base Tunnel in Switzerland, which was recently completed, and has a maximum depth of cover of 2.3 km (approximately 7,500 feet).
D3	Also, Page 43 of geotechnical reports states the depth of the tunnel is twice the state of practice of gasketed segmental lining used in the Arrowhead tunnels. Also, Page 22 of geotechnical report states that San Jacinto River tunnel was determined to be a permanent problem and could not be fixed. Environmental impacts to springs sources providing water to the Bighorn Sheep could result in a "taking" under the ESA.	Technical and CEQA/NEPA	Noted. A gasketed precast concrete segmental tunnel liner is one of many available methods for controlling groundwater infiltration into tunnels, such as those used on the Arrowhead Tunnels Project. For tunnels that may experience high groundwater pressures, other mitigation methods will need to be utilized in conjunction with gasketed precast concrete segmental tunnel linings, such as probe drilling, pre-excavation grouting, formation grouting, and installation of a secondary steel lining inside the initial gasketed precast concrete segmental tunnel lining in order to handle the higher groundwater pressures, especially for portions of the tunnel alignment within fault and fault zone areas. This is further discussed in subsection entitled “Geologic Issues” of Section 2.4.5 and in detail in subsection entitled “Groundwater Concerns” of Section 2.4.7 of the Regional Conveyance System Study – Phase A

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			dated August 2020 prepared by Black & Veatch. The San Jacinto Tunnel was constructed in the 1930s. The Kleinfelder Report notes that "unstable sections [of the San Jacinto Tunnel] were supported with horseshoe and circular steel sets and gunite for temporary tunnel support [and] some sections of the tunnel were self-supporting and not lined initially." Further, the report indicates that "efforts to reduce the groundwater pressures during construction and shut off the water flow included driving pioneer tunnels parallel to the main tunnel to reduce groundwater pressures and perform pressure grouting by injecting cement into drill holes." It should be noted that there have been significant advancements in tunnel lining and grouting technologies since this tunnel was constructed, mainly to prevent potential negative impacts of groundwater intrusion. The means and methods utilized almost a century ago in an attempt to control groundwater intrusion are completely different from those utilized in the tunnel industry of today. Regarding specific comment on "taking" under ESA, RCS is in an early feasibility level analysis. The potential impacts from any future project alignment, project component, and/or construction methodologies will be analyzed if authorized by the SDCWA Board of Directors, in subsequent phases. Appropriate CEQA/NEPA review would be part of phases subsequent to Phase B, which would adequately analyze potential impacts on all environmental factors and identify appropriate recommendations to avoid or minimize potential impacts on sensitive resources. Additionally, the SDCWA will coordinate and consult with appropriate regulatory agencies to obtain all necessary discretionary permits and/or other regulatory approvals.
D4	Tunnel crossing 8 active faults, high head pressures in active fault zone. Displacement within the tunnel and lining from an earthquake would be catastrophic and not possible to fix.	Technical	Noted. Please see response to comment C4.

	E) Tubb Canyon Desert Conservancy (TCDC) letter, dated August 24, 2020 and November 12, 2020 (Received on November 9, 2020)		
E1	The fact is there has been no public discussion of the RCS proposal in the Borrego Valley community and no agency or organization in Borrego Springs has voted to support the project.	Outreach	Noted. RCS Phase A was focused on technical and financial fatal flaws before conducting stakeholder outreach. Several preliminary meetings were held with BWD Board but extensive stakeholder outreach and dialogue with potential partners was always planned for Phase B based on Phase A results and if authorized by the SDCWA Board of Directors.
E2	TCDC shares regional concerns described in MAM consultant report of July 2020 that project is not cost competitive and that the Phase A report employed highly implausible assumptions. RCS would be redundant of the already existing Colorado River conveyance system. That the RCS adds no new water to the system. Ratepayers would be saddled with unnecessary debt for generations, money could be spent in far more effective ways to address the objectives of establishing a sufficient and reliable water supply for San Diego and surrounding communities	Water Resources	Noted. Phase A of the RCS Study evaluated technical feasibility and a high-level economic analysis, which demonstrated that g the RCS is cost competitive with the current method of conveyance of the SDCWA's independent Colorado River supplies via Metropolitan Water District's Colorado River Aqueduct. The high-level economic analysis demonstrated additional examination is needed to fully assess the viability of the RCS. If the RCS Study moves to Phase B, a robust economic analysis will be performed to inform the SDCWA Board of Directors' decision and support long-term water planning decisions.
E3	RCS would traverse six active fault lines.	Technical	Noted. Please see response to comment C4.
E4	Borrego Springs knows that reduction of its water consumption in the next 20 years, limits income from agriculture; therefore, we are concerned that an inevitable disruptions of a massive project like the RCS would be detrimental to the undisturbed wilderness that is the basis of our ecotourism effort and detrimental to our critical economic pivot.	CEQA/NEPA	Noted. Please see response to comment B1 and A1.
E5	Impact on water quality and the structural integrity of aquifer resulting from conjunctive use.	Water Resources	Noted. Please see response to comment A1 and A2.

E6	RCS is fatally flawed from a Borrego perspective and concerns fall into several broad categories: • The ecological devastation the RCS's trenches, tunnels, pumping stations, and powerlines would bring to public and private lands in the Borrego Valley, • The economic devastation the RCS would bring to Borrego Springs' emerging ecotourism industry as a result of the Borrego Valley being an industrial construction site for 15 years, • Borrego Springs will have completed the work of reaching sustainable yield at least 5 years before the first drop of water could flow from the RCS to Borrego Springs, • The low probability of Borrego being able to secure water rights of and pay for the supply and transportation of any seniority to 20,000 AFY from the over-allocated Colorado River, • The low probability of conjunctive use of Colorado River water, either direct use or storage in the Borrego Basin, and • The low probability of Borrego being able to absorb the multi-million-dollar cost associated with building an alternative distribution system in Borrego for direct • use of Colorado River water.	CEQA/NEPA and Partnerships	Noted. Please see response to comments A1 and B1.

E7	• The preferred route of the RCS pipeline across ABDSP roughly follows the alternative desert route of San Diego Gas & Electric's Sunrise Powerlink Project which CA Public Utilities Commission evaluated for that project and abandoned it as too destructive to the fragile land and species along this route • Proposed preferred RCS route construction is in a transition zone between the Sonoran Desert (Colorado Subdivision) at its western terminus and higher elevation foothill chaparral and oak woodland plant regimes with habitat supporting significant biodiversity and listed species • Habitat along the proposed RCS route encompasses several surface springs, seasonal courses that provide ideal condition for numerous Lizard species, (FTHL), Burrowing Owls on Tubb Canyon Bjada, Bighorn Sheep, variety of resident and migratory bird species, ancient ocotillo forest and associated native vegetation • Construction would destroy fragile biotic crust of the desert wherever surface disturbance occurs which impacts the ability of desert soils to support diverse native flora. • Removal of the biotic crust results in fine particulates becoming airborne in the high winds that frequently blow through Tubb Canyon that would pollute the clean air of ABDSP and adjacent Wilderness Areas, obscuring scenic vistas and the clear dark skies that are highly valued in Borrego Valley. Resulting degraded air quality would also diminish the tourist value of Borrego Springs and surrounding ABDSP, resulting in harm to the local economy (tourism revenues would decrease) and human health (frequent asthmatic, allergic, other respiratory reactions). • Construction and pumping station noise would reverberate off the nearby mountains and canyons, causing unacceptably high noise levels locally and across	CEQA/NEPA	Please note that RCS Phase A study didn't select a preferred alternative yet because appropriate level of environmental analysis has not been completed. Please see response to comment B1. Additionally, unlike overhead powerlines, Sunrise Powerlink, RCS would be installed underground in deep tunnels with limited potential impacts. The potential impacts from any future project alignment, project component, and/or construction methodologies will be analyzed if authorized by the SDCWA Board of Directors, in subsequent phases. Appropriate CEQA/NEPA review would be part of phases subsequent to Phase B, which would adequately analyze potential impacts on all environmental factors and identify appropriate recommendations to avoid or minimize potential impacts on sensitive resources. It would also include coordination and notification of tribal communities that are traditionally or culturally affiliated with the RCS geographic area in accordance with the AB 52 process.

	the Park. Increased construction-associated truck traffic would have an adverse impact on noise, scenic vistas, and vehicle emissions, further degrading air quality and visibility in the Borrego Valley and the Tubb Canyon region. • Excavation and construction would likely destroy ancient Native American sites. Tubb Canyon Bajada was one heavily used by local Cahuilla tribes for their seasonal harvest of agave. Nearby canyons and arroyos provided reliable water in the desert from both natural springs and periodic floods that flowed into seasonal streambeds and ephemeral wetlands. Potsherds, stone hand tools, and other Native American and pioneer artifacts are plentiful in the Tubb Canyon area and are present on the proposed RCS route.		