

**ANNUAL REPORT
ON THE
COLORADO RIVER BASIN
SALINITY CONTROL PROGRAM**

2021

**COLORADO RIVER BASIN SALINITY CONTROL
ADVISORY COUNCIL**

December 31, 2021

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- A – Colorado River Basin Salinity Control Advisory Council Charter, August 28, 2020
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BACKGROUND

Title II of the Colorado River Basin Salinity Control Act (Act) (Public Law 93-320) created the Colorado River Basin Salinity Control Program (Program), and Section 204 of the Act created the Colorado River Basin Salinity Control Advisory Council (Council). With the 2008 amendments to the Act that created the Basin States Program (BSP), the Council's consultation responsibilities have been redefined and clearly stated. The Secretary of the Department of the Interior, the Secretary of the Department of Agriculture, and the Administrator of the Environmental Protection Agency (EPA) originally approved a charter for the Council on February 6, 1976. In 2010 the Charter was revised to better reflect the Legislative changes that occurred to the Program in 2008. The Charter was most recently renewed in 2020. A copy of the current Council Charter is included as Attachment A.

The Council consists of up to three members from each of the seven Colorado River Basin States. Governors of their respective states appoint the Council members. The Council membership list as of December 31, 2021, is included as Attachment B. The Council has created a Technical Advisory Group (TAG) that it uses to provide analyses and recommendations. The TAG includes one member from each state. Its chair is appointed by the Council's Chair.

All of the Council members at this time are also members of the Colorado River Basin Salinity Control Forum (Forum). The Forum is an organization which was created in 1973 by the seven Colorado River Basin States for the purpose of interstate cooperation and to provide the states with the information necessary to comply with the Water Quality Standards for Salinity on the Colorado River and Section 303 of the Clean Water Act. The Forum, like the Council, has an advisory and analytical group which is named the Forum's Work Group (Work Group).

This report provides annual recommendations to the federal agencies concerning the progress of the Program and the need for specific actions by involved federal agencies.

This report comments on the actions taken by the federal agencies through December 31, 2021.

This report does not attempt to fully describe or analyze the Program. Readers unfamiliar with the Program should refer to *Quality of Water, Colorado River Basin, Progress Report No. 25, 2017*, and the *2020 Review, Water Quality Standards for Salinity, Colorado River System, October 2020 (2020 Review)* for a discussion of the Program. The first report is available at www.usbr.gov/uc/progact/salinity/pdfs/PR25final.pdf or by contacting Aung Hla, Program Manager for the Bureau of Reclamation's (Reclamation) portion of the Program. The second report is available at www.ColoradoRiverSalinity.org or by contacting Don Barnett, the Executive Director for the Forum. The addresses and phone numbers for Reclamation and the Forum are provided at the end of this report.

The Council met twice in 2021. Due to COVID, both meetings were held via Zoom. At the meetings, the Council heard summaries of activities and reports of accomplishments in Fiscal Year 2021 (FY-2021). It further discussed the federal agencies' responses to the 2020 Advisory Council Report. The Council provided the federal agencies the opportunity to report orally and to explain these responses to the 2020 Advisory Council Report. Included in this report as Attachment C are the federal written responses to the 2020 Advisory Council Report. At these meetings the Council also heard reports from the federal agencies on implementation of the Program during FY-2021 and discussed the substance of this report. The Council appreciates the efforts of the federal agencies to summarize Program accomplishments into a timely, informative, and concise Federal Accomplishments Report which was reviewed and discussed at the meetings.

COUNCIL COMMENTS AND RECOMMENDATIONS

GENERAL SUBJECTS

The Council continues to be pleased with the direction of the Program and the way the federal agencies are working together and coordinating with the Council, the Forum, the TAG, and the Work Group.

The importance of this joint effort is magnified as Reclamation and the Forum continue to evaluate long-term alternatives to the Paradox Valley Unit (PVU), while operating the injection well at a reduced rate. The Council finds that continued salinity control at the PVU is a most critical issue. It is most important that all involved Department of the Interior agencies consider the Paradox replacement alternative effort as a department-wide effort and that BLM, USFWS and USGS continue as partners with Reclamation in moving the project ahead.

The Council is also pleased with BLM's continuing effort to study and understand salt mobilization processes on rangelands. Reclamation, USGS and Agricultural Research Service (ARS) have provided great assistance in this effort. This has been and continues to be very important. The Council encourages all federal agencies involved in these efforts to continue to work cooperatively to find answers to the salt loading which occurs from these federally administered lands. The Council is committed to work with BLM, Reclamation, and USGS to pursue opportunities to fund these efforts. The Council also requests that the USGS continue to provide science support in this effort.

The Council also appreciates the efforts of the multi-agency Science Team in providing the TAG and the Work Group valuable analysis of various issues facing the Program and reviewing potential study efforts. The Council recommends that this support continue. The Council also recognizes that a number of modeling tools have and are being developed and used by the various agencies to assist in understanding and forecasting salinity trends. The Council request that the Science Team coordinate these efforts so that the Council can

understand the strengths and weaknesses of the models and how best to use them for moving Program objectives forward.

The Council and the Forum continue to develop opportunities to ensure that adequate up-front cost sharing is available to match the federal expenditures for the Program. The Council appreciates Reclamation's extra efforts in working through the short-term management of the Lower Colorado River Basin Development Fund. The Council encourages all the federal agencies to work with the Forum on this effort as appropriate.

As a final general item, the timing of the renewal of the Charter has been problematic in past years as it has fallen coincident with the Council's fall meeting, which made it difficult to commit to meeting and travel arrangements when the Charter had not yet been signed by all three sponsoring agencies. The Council appreciates Reclamation's efforts this past renewal period to move the period for renewal forward. It encourages the Department of Agriculture and EPA to likewise make early charter renewal a priority in 2022. Further, the Council recognizes that it is somewhat unique from other Federal Advisory Committee Act committees and so it requests that the Charter stay consistent with the Congressional mandate to the Council and that no additional provisions be added which would limit the Council's effectiveness in meeting its role in moving the Program forward.

PROGRAM FUNDING RECOMMENDATIONS

The funding level recommendations contained in this report are consistent with and support the conclusions regarding the funding required to accomplish the Plan of Implementation (Plan) adopted by the Forum as part of its 2020 Review. The Program includes a significant amount of non-federal cost sharing. The states provide, in total, 30 percent cost share for the Program from the Upper Colorado River Basin Fund and the Lower Colorado River Basin Development Fund. The states are currently the second largest contributor to the Program behind USDA. In addition to the states' cost share, the local producers cost share in the USDA on-farm program and many who participate in Reclamation's Basinwide Program bring significant dollars to their projects. The

non-federal participants (states, landowners, irrigation districts, etc.) are ready in FY-2022 to contribute their share of the Program costs as up-front payments.

Tables 1 and 2 contain the Council's recommendations, adopted by the Council at its October meeting, for federal funding for FY-2022 through FY-2025. These funds are for the construction activities necessary to meet the Program objectives as set forth in the Plan of Implementation found in the 2020 Review. The Forum also supports these recommendations and will seek adequate funding for the Program. The Council wishes to emphasize that funding delays and funding in lesser amounts will render the Program unable to meet the program objectives, as measured in tons of salt-load reduction. The funding recommendations shown in Table 1 are for the federal portion of project implementation costs only and are independent of the cost-share dollars from the Basin States Program. The Council also urges the agencies to provide adequate funding to support operation and maintenance, technical and education assistance, monitoring and evaluation of implemented projects and planning for future projects. The Council recommends that funds for these activities be provided in addition to the funds recommended in Tables 1 and 2. The Council requests that in their responses, federal agencies specifically comment on funding for these non-construction activities. Additional specific recommendations on Program funding are found in the individual agencies' sections below.

TABLE 1
Colorado River Salinity Control – Department of the Interior
Funding Recommendations (2022-2025)
December 31, 2021

	Fiscal Years			
	2022	2023	2024	2025
Bureau of Reclamation ^{1,2} Basinwide Program	\$10,700,000	\$10,700,000	\$10,700,000	\$10,700,000
Bureau of Land Management Salinity Specific Funding from the Aquatic Habitat Management Program	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000

Notes:

1. The Council anticipates and requests that Reclamation budget sufficient funds for required operation and maintenance of constructed units and for plan formulation in addition to these amounts.
2. Funding recommendations in Table 1 do not include funds recommended for studies and future implementation at the PVU. The Council needs the assistance of Reclamation to determine the level of funding needed to support the PVU.

TABLE 2
Colorado River Salinity Control – Department of Agriculture (EQIP)
Funding Recommendations (2022-2025)
December 31, 2021

STATE	FY-2022 ¹	FY-2023 ¹	FY-2024 ¹	FY-2025 ²
COLORADO				
FA	\$9,000,000	\$9,000,000	\$9,000,000	\$9,000,000
UTAH				
FA	\$7,155,330	\$6,255,330	\$6,197,790	\$6,197,790
WYOMING				
FA	\$300,000	\$300,000	\$300,000	\$300,000
TOTALS	\$16,455,330	\$15,555,330	\$15,497,790	\$15,497,790

Notes:

1. Based on State Conservationists' Three-Year Funding Plan (2022-2024)
2. Same as FY-2024. Advisory Council recommendation for guidance when developing 2023-2025 Three-Year Funding Plan

The below paragraphs provide specific comments and recommendations to the federal agencies involved in the implementation of the Salinity Control Program.

U.S. DEPARTMENT OF THE INTERIOR (DOI)

Bureau of Reclamation (Reclamation)

The Council greatly appreciates the efforts of the Upper Colorado Region (UC) office in the continued oversight and coordination of the Program and the priority given to the Program from the top down, including the assemblage and support of a capable and dedicated salinity team. The Council also appreciates the increased involvement of the Lower Colorado Region (LC) office, including participation of a salinity coordinator in the Work Group meetings and a high-level representative at the Forum and Advisory Council meetings.

The Council recognizes that it is difficult, given Reclamation's budget cycle, to make funding recommendations that can influence Reclamation's budget request for the next two fiscal years. The Council is very concerned with recent reductions in funding to the Basinwide Program. The Council recognizes the efforts of Reclamation staff to smoothly and efficiently implement the Basinwide Program despite yo-yoing appropriations. The Council also recognizes and commends Reclamation's efforts to acquire year-end and other funds to make up for initial appropriation shortfalls.

- The Council again requests that Secretarial and Reclamation leadership do everything within their power to seek adequate and consistent funding levels. The Council recommends that Reclamation seek ways to maintain funding in FY-2022 and beyond in accordance with the amounts shown in Table 1. Though the Council is very appreciative of Reclamation's efforts to "find" additional funds not initially appropriated to the Program, it would very much prefer an initial request of \$10.7 million in the President's Budget each year. Reclamation is requested to give a detailed report on its efforts to secure additional funding at the next Advisory Council meeting.

Lastly, relative to funding, the Council recognizes Reclamation's efforts to continue to budget sufficient funds for required operation and maintenance of constructed units and for plan formulation, including the PVU alternatives studies and EIS effort. The Council did note at its meeting that for the past several years, while the project was not in operations, O&M expenditures were on par with those during full operations. The Council expresses concern over these high expenditures during periods of non-operation.

- Just to be clear, the Council welcomes the opportunity to cost share in and partner with Reclamation in Paradox operations – it just wants to do so when salinity control is being achieved.

The Council also recognizes that Reclamation receives an appropriation to its Colorado River Water Quality Improvement Program. While this program is outside of the Title II funding, there is meaningful overlap and benefits between the two efforts, including supporting staff and maintaining stream gaging and monitoring activities.

- Therefore, the Council requests that Reclamation support the funding of this line item so that it does not draw dollars away from implementation efforts under the Title II program.
- The also Council affirms its prior requests that Reclamation continue to budget sufficient dollars, independent of the Basinwide Program funding, for O&M activities, planning, operations, and administration of the Program.

The Council appreciates Reclamation's efforts with the 2019 FOA and looks forward to the implementation of the projects selected thereunder. Many of the projects may be in jeopardy due to the recent, dramatic increases in pipe prices. The Council recognizes and appreciates Reclamations efforts to review and a find an appropriate resolution to this matter.

The Council has observed over the years Reclamation's efforts to adapt and be even more effective in administering the FOAs. As we look forward to the 2023 NOFO, it requests that Reclamation continue to do so. The Council appreciates Reclamation's efforts to work with applicants prior to submission of applications so as to create the best projects. The Council

asks that Reclamation continue to adapt the NOFO by listening to the needs and views of the applying entities. In particular, it notes the increasing opportunities to leverage different funding sources to create broader and more effective projects that benefit the larger community and watershed goals.

- With the 2019 FOA now completed, the Council requests that Reclamation work with the Forum and its Work Group in assessing the strengths and weaknesses of the recent process and create a list of items to be addressed prior to the next NOFO.

The Council appreciates the effort in the UC Region to address and improve the contracting issues that have previously faced the Program. It also notes that it was surprised by changes in contracting direction from Denver prohibiting Reclamation from passing off contracts to the State Ag agencies. The Council reaffirms its appreciation for Reclamation's efforts to modify its contracts with the state agencies to preserve the important functions of these agencies within the Program.

The past salt disposal at PVU has been very important to the Colorado River System for improving water quality (9-10 mg/L) and reducing economic damages (estimated at \$24 million annually) in the Lower Basin. The Council applauds Reclamation's efforts to evaluate re-initiation of injection opportunities and requests that operations of PVU, even if on a more limited basis, continue to be top priority for Reclamation. Along this same vein, the Council urges Reclamation to hasten the Seismic Risk Analysis effort so that it is not an impediment to operational decisions. Lastly, the recently issued PVU EIS did not identify a viable salt disposal alternative. With this effort now complete, the Council urges Reclamation to work with the Forum in fully exploring any possibilities for salinity control at PVU.

The Council notes that Reclamation has brought together a capable staff to effectively administer the Program. The Council notes that important to the overall efforts in the past has been a staff engineering position. This position has now been vacant for several years. The Council reiterates its strong recommendation that this position be filled soon with a capable individual who works solely on the Program.

The Council appreciates Reclamation's significant efforts to update the Salinity Economic Impact Model (SEIM) for quantifying economic damages from salinity in the lower Colorado River System. The Council requests that Reclamation work with the Forum's Work Group to identify the next steps in improving our understanding and ability to quantify impacts of salinity levels.

Each fall Reclamation seeks input from the involved federal agencies and prepares a Federal Accomplishments Report (FAR), which report is sent to the Advisory Council before its fall meeting. The efforts of Reclamation to bring together the FAR each year in advance of the fall meetings is very helpful in the Council's review and evaluation of the Program, and the Council urges that this report continue to be provided.

The Council continues to observe the value of the role played by the Science Team. The Council urges Reclamation to continue to convene and staff the Science Team.

The Council asks Reclamation to respond in writing to recommendations contained in this report no later than **October 14, 2022**.

Bureau of Land Management (BLM)

The Council recognizes that when Congress directed the Secretary of the Interior "to develop a comprehensive program for minimizing salt contributions to the Colorado River from lands administered by the Bureau of Land Management," BLM was given a daunting task. Creation of a "program" has not always fit within other BLM programs. As the Council has stated in recent reports and hereby is restating again, it recognizes and expresses appreciation for the top-to-bottom leadership which BLM is now showing relative to the Congressional charge to BLM. Such leadership is seen by participation in meetings, responses to inquiries, dedication of staff time and funding, commitment to studies, understanding and reporting, and the willingness to think outside the box in regard to integrating salinity control into other BLM programs and objectives.

The Council appreciates BLM's efforts to implement salinity control practices dealing with administrative uncertainty. It also appreciates BLM's ability to maintain the program despite the transition to the Aquatic Habitat Management Program. Moving forward, the Council recommends that BLM continue to expend at least \$2.0 million for implementation of specific salinity control activities on public lands within the Basin. The Council also recognizes, appreciates, and requests that BLM also continue to use other non-specific salinity dollars for efforts to study and improve the water quality in the Colorado River Basin.

The Council also recognizes and appreciates BLM's increased efforts and effectiveness in reporting expenditure of funds and project implementation to the Council and the Forum and to provide them with an opportunity to see proposed activities before they are implemented. The Council asks that BLM continue to do so and to work with other federal partners, the Forum, or its Work Group, to develop a method for reporting salinity improvements associated with such activities. It specifically asks that BLM work with the Forum's Work Group to determine a defensible way to quantify and report both qualitatively and quantitatively the impact of such control efforts.

The Council appreciates BLM's efforts to create a better understanding of salt mobilization on public lands, including being involved in a number of presently ongoing studies in conjunction with ARS and USGS. The Council specifically recognizes and appreciates the significant efforts expended by BLM in developing a basin-wide APEX model. It requests that as the model is developed BLM work closely with the Science Team and the Work Group on reporting progress, coordinating efforts, and seeking peer review and input. The Council understands that culmination of these efforts is nearing and is anxious to hear the results of these studies. The Council asks that BLM work with the Science Team and the Forum's Work Group in reporting out the results of these studies as they become available. The Council reaffirms its request that BLM coordinate with the Work Group to know where studies have been reported (i.e., journals, etc.) and report the status of the overall BLM and ARS efforts, as well as plans moving forward.

The Council reaffirms its appreciation for BLM's financial participation in the large USGS Upper Basin salinity trends study. This study is now in the heart of the second phase which seeks to attribute identified salinity trends to watershed processes. At this juncture in the study, the Council requests that BLM provide needed support, documentation and other assistance required by USGS to make the study as complete and robust in its analysis as possible.

The Council recognizes the desire to improve the options for the replacement of wildlife values foregone. It appreciates BLM's efforts to find and participate in the establishment of such replacement, especially on federally administered lands where long-term maintenance and management can occur. The Council requests that BLM continue to be engaged with Reclamation, NRCS and the USFWS in seeking out and establishing such wildlife areas.

The Council requests a written report responding to each of the Council's recommendations no later than **October 14, 2022**.

U.S. Geological Survey (USGS)

The Council wants to express its continued appreciation for how responsive USGS is in its science role for the Secretary of the Interior in assisting with moving the Salinity Control Program forward. The Council appreciates the continued coordination and support of the Program provided by USGS with the several individuals involved in assisting with science support. Both the continuity of participation, as well as the ability to bring in specialists when needed, has really provided important strength and understanding to the Program. Participation by USGS on the Science Team, the TAG and Work Group and at Advisory Council and Forum meetings has helped strengthen the overall Program and efforts. Such participation provides input and guidance and helps merge science and implementation. The Council asks that USGS continue to participate in Program efforts and meetings and work with Reclamation, NRCS, BLM and the Work Group to ensure that the data collection,

interpretation, and analysis efforts are accurate, effective and contribute to the overall goal of Program implementation.

The Council very much appreciates the significant efforts of USGS with a number of studies at the PVU. Such studies will be important to the overall understanding of the hydrodynamics of the brine discharge. The Council recognizes and appreciates the recent efforts to complete these studies and asks that USGS stay engaged with Reclamation and the states as they seek to optimize brine collection and disposal activities.

The Council recognizes USGS's selection of the Upper Colorado River Basin as the second NGWOS basin. It sees great potential in increased and improved water monitoring and modeling. There are a number of interests and objectives in the Upper Colorado River Basin. The Council recognizes USGS's efforts to be sensitive to the goals and objectives of the salinity control efforts and integrate these into the design of the increased monitoring instruments and locations and asks that such integration continue. It appreciates USGS' frequent reports to the Work Group on these efforts.

The Council recognizes USGS's initiation of the study of the long-term salinity trends in the Upper Basin and appreciates the support thus far. This is a big deal to the overall Program. The Council appreciates the extension of the effort to the Lower Basin to provide uniformity of analysis of trends in the system. The Council also appreciates USGS's efforts to regularly report progress and results to the Forum and the Work Group. It asks that now, as USGS is deep into the second phase of the effort, it continue to work closely with the states and BLM to complete as robust an analysis as possible. The Council recognizes that important future operational decisions could be based to a certain extent on information gathered from this study.

The Council has given its support to detailed investigative efforts by USGS of the Pah Tempe Springs. The Council appreciates USGS's efforts and insight in proposing the final study to finish characterizing the fault zone which leads to brine discharge to the Virgin River. The Council appreciates USGS' efforts to move this study forward with the recent

pump test and now requests that USGS move forward in a timely manner with the data analysis and report writing.

The Council recognizes and appreciates USGS's recent efforts to review data gaps for potential new salinity project areas. The effort was well researched and presented and met the needs of the states. The Council also appreciates the addition of the Squaw Gulch in Colorado and CRIT lands in Arizona in the analysis. The Council requests that USGS continue to provide guidance and support to the Work Group as it considers priorities for hydrosalinity studies and opportunities for new salinity control areas.

The Council recognizes USGS's critical role on the Science Team in identifying Program science needs and their role in scoping out potential studies and performing many of these studies. These efforts are much appreciated. USGS has performed a number of other studies for the Program which have guided thinking and implementation activities. The USGS's role and efforts are recognized by the Council and are much appreciated. Further, the Council recognizes and appreciates USGS' proactive efforts to bring to the Work Group's attention other study efforts of interest within the Basin.

The Council wishes to thank USGS for the priority it gives to funding the basic stream gaging program on the Colorado River. The Council encourages and supports USGS in their efforts to maintain the 20-gage network.

The Council requests that USGS respond to the Council on its continued ability to perform important data gathering, review and study functions no later than **October 14, 2022**.

U.S. Fish & Wildlife Service (USFWS)

The Council recognizes that many of its recommendations to the USFWS are on a continuing basis and do not change significantly from year to year. It appreciates USFWS's role in finding, reviewing, and supporting viable wildlife replacement projects and the service that USFWS provides in reviewing and tabulating replacement by areas and as requested. The Council recommends that USFWS continue these activities and proactively

assist the other agencies in moving the Program forward. The Council also recognizes the important role of the USFWS salinity coordinator and as it transitions to new personnel it requests that it continue to provide the same collaborative service that it has in the recent past.

As noted in prior years, the Council again notes its appreciation for the tables provided by USFWS in the FAR. It also appreciates the efforts of the Service to review the M&E reports. The Council appreciates USFWS's efforts to review and approve off-site replacement efforts and concurs with USFWS that such efforts are better than receiving no replacement. The Council finds the review and tabulations of wildlife values foregone replacement efforts most helpful and requests that the Council continue to be informed each year in the FAR as to the effectiveness and current status of these efforts. The Council recognizes that the wildlife training opportunity did not occur last year and so it requests that, when organized, the FWS participate in such training presentation to the Work Group on how wildlife values are determined and tabulated.

In the past few years USFWS has participated with other agencies in seeking and reviewing potentially larger, more permanent mitigation opportunities, including ones on federally administered lands. In the past the Council has recognized the USFWS's role in the successful larger wildlife projects. The Council asks that USFWS continue to not only be a participant in these activities, but that it be proactive and a leader in seeking out wildlife replacement opportunities which will provide lasting wildlife enhancement, and which will fit within the Program opportunities and mandates, including construction of such projects on public lands.

The Council requests a written response to the above recommendations by **October 14, 2022**.

U.S. DEPARTMENT OF AGRICULTURE (USDA)

Natural Resources Conservation Service (NRCS)

The Council has recognized in the past and continues to recognize and express appreciation for the key and essential role that NRCS has played and continues to play in reducing the salt load of the Colorado River and its tributaries, creating local environmental benefits as well as benefits for downstream agricultural and M&I users. NRCS has been a consistent and very productive partner in the effort. Providing these benefits is the result of a coordinated effort between the Colorado, Utah, and Wyoming state NRCS offices in the Upper Basin and also the cooperation they have provided when working with other federal agencies, the TAG, the Forum, and the Work Group.

The Council appreciates the level of funding made available to the salinity control effort through EQIP despite the myriad of demands placed on program managers in allocating limited EQIP funds. Traditionally, on-farm salinity control has been some of the most cost-effective salinity efforts available. While much of the less expensive salinity control has now been accomplished and there has been an increase in on-farm salinity control costs in the last couple of years, cost-effective salinity control opportunities still exist. Continued funding is needed to meet the goals identified in the 2020 Review for the Department of Agriculture. The Council requests the three State Conservationists, and their staff continue to develop a realistic Three-Year Funding Plan and that NRCS program managers continue to allocate salinity EQIP funds to the state offices consistent with such plan. It also requests that NRCS look for opportunities to fund on-farm salinity control activities in the San Juan River Basin in New Mexico.

The Council also continues to recognize that much of NRCS's past success in implementing salinity control comes from efforts beyond simply servicing EQIP contracts. It comes from talented staff working with producers in properly operating and managing on-farm improvements. A USGS study of NRCS data over a number of years in the Grand Valley shows a wide range in effectiveness derived from implementation and maintenance of the same practices, confirming the importance of the continual need for training and assisting

producers. It has come to the Council's attention that occasionally the limitation in implementation of the Program is tied not to lack of available funding, but to lack of available staff to service needed contracts. The Council recognizes that there have been meaningful efforts this past year in filling vacancies within the Program and, therefore, simply requests that NRCS continue to evaluate Program limitations and, if needed, make adjustments so as to provide sufficient staffing to meet Program objectives.

The Council believes that it is the dedication, coupled with effective and hard work of NRCS personnel, which has made the NRCS salinity control program such a success. The Council appreciates the attentiveness of NRCS Washington staff in the Program's success. The Council also recognizes and appreciates the dedicated attention that the three State Conservationists have given the Program and it invites them to continue to frequently participate in Program meetings, discussions and activities and provide input, expertise and guidance as we move the overall Program forward. The Council simply requests that NRCS continues to remain an engaged and proactive partner as it has in the past.

The Council has urged in the past the employment of an NRCS salinity coordinator with authorities and resources to work anywhere, as needed within the seven Colorado River Basin States. NRCS has now hired two coordinators with complimentary but differing roles and with other assignments beyond salinity. The Council would reiterate its request that these coordinators are given sufficient time and resources to continue NRCS's participation in the overall Program efforts and that they be given the latitude and assignment to coordinate salinity control efforts throughout the seven states. Particular efforts could be made in the states other than Utah to inform NRCS staff on Program goals and objectives and to report on implementation of such activities.

Two years ago, the Council requested that NRCS provide data and an analysis of the varying cost effectiveness of EQIP contracts by practice in the various salinity project areas. The Council very much appreciates NRCS's report which showed that overall implementation of EQIP contracts continues to be a very cost-effective component of the salinity control program. The Council requests that NRCS again review and report on the cost effectiveness

of EQIP in providing salinity control. It also requests that NRCS continue to provide cost implementation data to Reclamation as it seeks to model such in the 2023 Review.

For some time the Council has looked forward to the opportunity afforded in the 2018 Farm Bill to provide EQIP contracts to Water Management Entities. The Council believes that such contracts will potentially fill a gap between Reclamation's off-farm program and regular EQIP on-farm contracts with producers. The Council appreciates NRCS now rolling out this part of the program and working with the Colorado River Basin States on its implementation. The Council understands that NRCS has been working through issues in implementing WME contracts and asks that it look for an opportunity to report to the Council on successes and remaining obstacles.

In similar manner, the Council expresses appreciation to NRCS for bringing to the states creative approaches to using other tools such as RCPP or PL566 to meet Program goals and objectives. It requests that NRCS continue in this collaborative vein as we seek to improve the water quality of the Colorado River System. The Council further requests that opportunities beyond Utah be sought and reported on. It notes that NRCS is playing a pivotal role in considering and organizing a potentially large PL566 effort in the San Juan River Basin and it asks that NRCS continue pursuing this opportunity and report frequently to the Forum and Work Group.

In the future, the Salinity Control Program may need to turn more and more to grazing lands (rangelands). BLM, ARS and USGS are now engaged in studies, in part funded by Basin States Program funds, to unravel the complex nature of salt loading from grazing lands. NRCS's Salinity Coordinator has been most helpful as this effort has moved ahead in the past. NRCS has leading knowledge in some aspects of this complex puzzle. The Council requests that NRCS continue to support this effort in any way it can.

The Council requests a written response from the USDA to recommendations contained in this report by **October 14, 2022**.

ENVIRONMENTAL PROTECTION AGENCY (EPA)

The Council continues to appreciate EPA's determination that Region 8 will be the coordinating region for the Salinity Control Program. The Council is pleased with the representative from this region and appreciates his participation at meetings, as well as the materials and responses provided, including EPA's annual write-up in the FAR.

The Council expresses appreciation to EPA for its involvement in, and assistance with the Forum's triennial review process to review and update its *Water Quality Standards for Salinity, Colorado River System (2020 Review)* including providing to the Forum a list of EPA administered NPDES permits. It asks that EPA continue such assistance as the Forum tackles the 2023 Review efforts. It also asks that EPA help shepherd the state standards through to approval. The Council requests that updates be given each year by EPA on the status of its efforts to approve such standards.

The Council also appreciates the involvement of EPA in water quality control efforts by the Tribes in the Colorado River Basin as they set water quality standards. The Council requests that EPA continue to provide updates on the number of tribes which have received Treatment as a State (TAS) designation and if they have adopted the Forum's policies into their NPDES rules. Anything else on implementation of water quality standards by the Tribes would be helpful.

The Council has found that Region 8 of the EPA has been most responsive to issues it has been asked to address. The Council would appreciate a response to the above comments by **October 14, 2022**.

INTERNATIONAL BOUNDARY AND WATER COMMISSION (IBWC)

While the Council's responsibilities are for activities occurring above Imperial Dam, the Council wishes to express its appreciation for the efforts and the activities of IBWC, particularly as it deals with sensitive salinity matters. The Council encourages IBWC to continue its coordination with the Council, the Forum and the states on issues affecting the salinity of the Colorado River as it crosses the international boundary. It also requests that from time to time, as appropriate, IBWC provide updates to the Council and the Forum on its binational salinity efforts and any other matters which may affect operations of the salinity control program.

The Council senses there may be a need to better inform Mexican officials and water users of the benefits to them associated with the Title II Salinity Control Program. The Council suggests that IBWC involve the Forum if there are ways that it can assist with any informational efforts directed to those using water below Imperial Dam. In the past the Forum and its staff has facilitated and conducted tours for designated officials from Mexico. It may be that IBWC would find this again to be helpful. If so, please contact the Forum in this regard.

CONCLUSION

The Council recognizes and appreciates its responsibility to submit comments and recommendations on salinity control activities to the federal agencies. As indicated in the General Comments section, the Council is pleased with the agencies' efforts put forth in 2021 and looks forward to providing a framework for future coordination and consultation. The Council requests that written responses to this report be provided no later than **October 14, 2022**. Responses should be sent to the Council's Chairman, Mr. Bill Hasencamp, at the following address:

Bill Hasencamp, Chairman
Colorado River Basin Salinity Control Advisory Council
P.O. Box 54153
Los Angeles, CA 90054-0153

It would be appreciated if copies of the responses are sent to Mr. Aung Hla, Reclamation's Program Manager for the Colorado River Basin Salinity Control Program (who also serves as the Designated Federal Officer to the Colorado River Basin Salinity Control Advisory Council), and to the Forum's Executive Director, Mr. Don Barnett, at the following addresses:

Aung Hla, Program Manager
Colorado River Basin Salinity Control Program
U.S. Bureau of Reclamation
125 S. State Street, Room 8100
Salt Lake City, UT 84138

Don A. Barnett, Executive Director
Colorado River Basin Salinity Control Forum
226 South 200 West
Farmington, UT 84025

Attachment A

Advisory Council Charter

August 28, 2020

**U. S. Department of the Interior
and
U. S. Department of Agriculture
and
U. S. Environmental Protection Agency**

**Colorado River Basin Salinity Control
Advisory Council**

Charter

1. **Committee's Official Designation.** The official designation of this Federal advisory committee is the Colorado River Basin Salinity Control Advisory Council (Council).
2. **Authority.** The Council was established by Section 204(a) of the Colorado River Basin Salinity Control Act (43 U.S.C. § 1594), Public Law 93-320, Title II, as amended by Public Laws 98-569, 104-20, 104-27, 106-459, and 110-246 (Act), and is regulated by the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C. Appendix 2.
3. **Objectives and Scope of Activities.** The Council provides advice and recommendations to the Secretaries of the Departments of the Interior (Interior) and Agriculture (Agriculture), and the Administrator of the Environmental Protection Agency (EPA) as stated in paragraph 4.
4. **Description of Duties.** The Council shall be advisory only and shall:
 - a. Act as liaison between both the Secretaries of the Interior and Agriculture and the Administrator of the EPA and the States in accomplishing the purposes of Title II;
 - b. Receive reports from the Secretary of the Interior on the progress of the salinity control program and review and comment on said reports;
 - c. Recommend to the Secretary of the Interior and the Administrator of the EPA appropriate studies of further projects, techniques, or methods for accomplishing the purposes of Title II; and
 - d. Provide to the Secretary of the Interior advice and consultation regarding implementation of the Basin States Program to carry out salinity control activities.

All current and future Executive Orders, Secretary's Orders, and Secretarial memos should be included for discussion and recommendations, where applicable, as they are released. At the conclusion of each meeting or shortly thereafter, provide a detailed recommendation report, including meeting minutes, to the Designated Federal Officer (DFO).

5. **Agency or Official to Whom the Committee Reports.** The Council will report to the Secretaries of the Interior and Agriculture, and the Administrator of EPA through the DFO.
6. **Support.** Support for the Council will be provided by Department of the Interior, Bureau of Reclamation.
7. **Estimated Annual Operating Cost and Staff Years.** The annual operating costs associated with supporting the Council's functions are estimated to be \$75,000, including all direct and indirect expenses and .20 Federal staff years support.
8. **Designated Federal Officer.** The DFO is the Colorado River Salinity Control Program Manager with Reclamation, and a full-time Federal employee appointed in accordance with Agency procedures. The DFO will approve or call all Council and subcommittee meetings, prepare and approve all meeting agendas, attend all Council and subcommittee meetings, adjourn any meeting when the DFO determines adjournment to be in the public interest, and chair meetings when directed to do so by the Secretary.
9. **Estimated Number and Frequency of Meetings.** The Council will meet approximately twice a year, and at such other times as designated by the DFO.
10. **Duration.** Continuing.
11. **Termination.** The Council is subject to biennial review and will be inactive 2 years from the date this Charter is filed, unless prior to that date, it is renewed in accordance with section 14 of the FACA. The Council will not meet or take any action without a valid current charter.
12. **Membership and Designation.** Membership of the Council is specified in Title II as being comprised of no more than three representatives from each of the seven Basin States (Wyoming, Colorado, Utah, New Mexico, Arizona, Nevada, and California). The representatives will serve at the discretion of the Governors of the state that appointed them.

Non-Federal members of the Council serve without compensation. However, while away from their homes or regular places of business, non-Federal members and subcommittee members engaged in Council or subcommittee business approved by the DFO may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service under 5 U.S.C. § 5703.

13. **Ethics Responsibilities of Members.** No Council or subcommittee member will participate in any Council or subcommittee deliberations or votes relating to a specific party matter before the Department or its bureaus and offices including a lease, license, permit, contract, grant, claim, agreement, or litigation in which the member or the entity the member represents has a direct financial interest.

14. **Subcommittees.** Subject to the DFO's approval, subcommittees can be formed for the purposes of compiling information or conducting research. However, subcommittees must act only under the direction of the DFO and must report their recommendations to the full Council for consideration. Subcommittees must not provide advice or work products directly to the Agency. Subcommittees will meet as necessary to accomplish their assignments, subject to the approval of the DFO.

15. **Recordkeeping.** The records of the Council, and formally and informally established subcommittees of the Council, shall be handled in accordance with General Records Schedule 6.2, and other approved Agency records disposition schedule. These records shall be available for public inspection and copying, subject to the Freedom of Information Act, 5 U.S.C. § 552.

**U. S. Department of the Interior
and
U. S. Department of Agriculture
and
U. S. Environmental Protection Agency**

**Colorado River Basin Salinity Control
Advisory Council**

Charter

Counterpart Signatory Page



Secretary of the Interior

JUL 17 2020

Date Signed

8-28-2020

Date Filed

**U. S. Department of the Interior
and
U.S. Department of Agriculture
and
U. S. Environmental Protection Agency**

**Colorado River Basin Salinity Control
Advisory Council**

Charter

Counterpart Signatory Page



Secretary of Agriculture

August 27, 2020

Date Signed

8-28-2020

Date Filed

**U. S. Department of the Interior
and
U. S. Department of Agriculture
and
U. S. Environmental Protection Agency
Colorado River Basin Salinity Control
Advisory Council**

Charter

Counterpart Signatory Page



Administrator
Environmental Protection Agency

August 19, 2020

Date Signed

8-28-2020

Date Filed

Attachment B

ADVISORY COUNCIL MEMBERSHIP

December 31, 2021

ARIZONA

Clint Chandler
Phoenix, Arizona

Patrick Dent
Phoenix, Arizona

Erin Jordan
Phoenix, Arizona

CALIFORNIA

Joaquin Esquivel
Sacramento, California

Bill Hasencamp
Los Angeles, California

Jessica Neuwerth
Glendale, California

COLORADO

Rebecca Mitchell
Denver, Colorado

David W. Robbins
Denver, Colorado

Nicole Rowan
Denver, Colorado

NEVADA

Andrew Burns
Las Vegas, Nevada

Sara Price
Las Vegas, Nevada

NEW MEXICO

John R. D'Antonio, Jr.
Santa Fe, New Mexico

Rolf Schmidt-Petersen
Santa Fe, New Mexico

UTAH

Candice Hasenyager
Salt Lake City, Utah

Erica Gaddis
Salt Lake City, Utah

Gawain Snow
Vernal, Utah

WYOMING

Chad Espenscheid
Big Piney, Wyoming

David Waterstreet
Cheyenne, Wyoming

Steve Wolff
Cheyenne, Wyoming

Attachment C

Federal Responses to the 2020 Advisory Council Report



United States Department of the Interior

BUREAU OF RECLAMATION
125 South State Street, Room 8100
Salt Lake City, UT 84138-1102



IN REPLY REFER TO:

UC-242
2.4.1.06

VIA ELECTRONIC MAIL ONLY

Mr. Bill Hasencamp, Chairman
Colorado River Basin Salinity
Control Advisory Council
P.O. Box 54153
Los Angeles, CA 90054-0153
whasencamp@mwdh2o.com

Subject: Reclamation's Responses to Specific Recommendations from the Colorado River
Basin Salinity Control Advisory Council's 2020 Annual Report

On behalf of Secretary Deb Haaland and Deputy Commissioner Camille Touton, I am responding to your letter of June 28, 2021, regarding the 2020 Annual Report on the Colorado River Basin Salinity Control Program (Salinity Control Program), prepared by the Colorado River Basin Salinity Control Advisory Council (Council).

The Council contributes greatly to the success of the Salinity Control Program. We truly value your partnership, participation, and recommendations in the Salinity Control Program. The Salinity Control Program continues to make measurable progress in controlling the salinity problem. Our responses to the specific requests and recommendations in the report for Reclamation are enclosed.

We thank you for your support and for being such an active and supportive partner in the Salinity Control Program. If you have any questions, please contact Mrs. Melynda Roberts by telephone at (801) 524-3727 or by email at mroberts@usbr.gov. For the hearing impaired please call the Federal Relay System at (800) 877-8339 (TTY).

Sincerely,

Wayne G. Pullan
Regional Director

Enclosure

cc: See next page

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

cc: Bureau of Reclamation
Designated Federal Officer
Mrs. Melynda Roberts
125 South State Street, Room 8100
Salt Lake City, UT 84138
mroberts@usbr.gov

Colorado River Board of California
Chairman, Technical Advisory Group
Mr. Rich Juricich
770 Fairmont Ave, Suite 100
Glendale, CA 91203-1068
rjuricich@crb.ca.gov

Colorado River Basin Salinity Control Forum
Executive Director
Mr. Don Barnett
106 West 500 South, Suite 101
Bountiful, UT 84010
dbarnett@barnettwater.com

Reclamation's Responses to Specific Recommendations from the Colorado River Basin Salinity Control Advisory Council's 2020 Annual Report

Paradox Valley Unit (PVU)

General Subjects: The importance of this joint effort is magnified as Reclamation and the Forum continue to evaluate alternatives to the Paradox Valley Unit (PVU), including options for restarting the existing brine injection well even for a limited duration. The Council finds that continued salinity control at the PVU is a most critical issue. It is most important that all involved Department of the Interior agencies consider the Paradox replacement alternative effort as a Department-wide effort and that BLM, USFWS and USGS continue as partners with Reclamation in moving the project ahead.

Response: The joint leadership of Reclamation, BLM, Fish and Wildlife Service, USGS and those within the Department of Interior responsible for PVU are prepared to evaluate any potentially technical, environmental, and economical viable alternatives that would be feasible at Paradox Valley.

Program Funding Recommendations, Table 1, Notes 2: Funding recommendations in Table 1 do not include funds recommended for studies and future implementation at the PVU. The Council needs the assistance of Reclamation to determine the level of funding needed to support the PVU.

Response: Reclamation understands the great benefit of working with the Basin States in developing and pursuing funding options. Reclamation desires that this item be included on Advisory Council's meeting agendas for the next few years.

Department of the Interior - Reclamation: The past salt disposal at PVU has been very important to the Program. With the injection well presently turned off, the Council urges Reclamation to quickly evaluate the viability of continued operations and injection. The recently issued PVU EIS did not identify a viable salt disposal alternative. With this effort now complete, the Council urges Reclamation to work with the Forum in fully exploring any unexplored possibilities for salinity control at PVU.

Response: Reclamation will continue salinity control in the Paradox Valley by the existing injection well as long as it is viable to do so. Reclamation will work closely with the Forum and its Work Group as future operations and plans are formulated.

Science Team

General Subjects: The Council also appreciates the efforts of the multi-agency Science Team in providing the TAG and the Work Group valuable analysis of various issues facing the Program and reviewing potential study efforts. The Council recommends that this support continue.

Department of the Interior - Reclamation: The Council continues to observe the value of the role played by the Science Team. The Council urges Reclamation to continue to convene and staff the Science Team.

Response: Reclamation also has found the efforts of the Science Team to be very valuable and will continue to support, staff, and convene the Science Team.

Charter

GENERAL SUBJECTS: The timing of the renewal of the Charter has been problematic in past years as it has fallen coincident with the Council's fall meeting, which made it difficult to commit to meeting and travel arrangements when the Charter hadn't yet been signed by all three sponsoring agencies. The Council appreciates Reclamation's efforts this past year to move the period for renewal forward. It encourages the Department of Agriculture and EPA to likewise make early charter renewal a priority in 2022. Further, the Council recognizes that it is somewhat unique from other FACA committees and so it requests that the Charter stay consistent with the Congressional mandate to the Council and that no additional provisions be added which would limit the Council's effectiveness in meeting its role in moving the Program forward.

Response: Reclamation began Charter renewal in January 2020 and completed the renewal in July 2020. Reclamation will promptly renew the Charter in the future and includes notifying contacts in the Department of Agriculture and EPA when to expect the Charter package for signing and approval in their agencies. Reclamation will keep the Council advised of any future proposed language changes in the Charter. Reclamation will also advise Departmental staff of new language that may conflict with the Congressional mandate of the Council.

Funding

PROGRAM FUNDING RECOMMENDATIONS: The Council also urges the agencies to provide adequate funding to support operation and maintenance, technical and education assistance, monitoring and evaluation of implemented projects and planning for future projects. The Council recommends that funds for these activities be provided in addition to the funds recommended in Tables 1 and 2. The Council requests that in their responses, federal agencies specifically comment on funding for these non-construction activities.

PROGRAM FUNDING RECOMMENDATIONS: Table 1, Notes 1: The Council anticipates and requests that Reclamation budget sufficient funds for required operation and maintenance of constructed units and for plan formulation in addition to these amounts.

Response: In FY 2020, Reclamation increased appropriations \$1,949,000, \$3,992,000, and \$524,240, for O&M units of Grand Valley, PVU, and McElmo Creek, respectively. In FY 2021, Reclamation funding was at \$2.1M, \$3.5M, and \$474K, respectively. For FY 2022, \$1.8M, \$3.7M and \$400K are included in the President's Budget. Reclamation feels that the units are being adequately funded to operate, maintain, monitor, and provide technical assistance.

DEPARTMENT OF INTERIOR -Reclamation: The Council requests that Secretarial and Bureau leadership do everything within their power to seek adequate and consistent funding levels. The Council recommends that Reclamation seek ways to maintain funding FY-2022 and beyond in accordance with the amounts shown in Table 1. Reclamation is requested to give a detailed report on its efforts to secure additional funding at the next Advisory Council meeting.

Response: Reclamation appreciates the support the Basin States provide to budget funding requests for the Salinity Control Program. Reclamation's UC Region takes every opportunity to make known the successes and the needs of the Salinity Control Program at all levels of Reclamation, within the Department and the Office of Management and Budget (OMB). Reclamation funds the Basinwide Program at the highest levels possible while balancing the need to not take the Lower Colorado River Basin Development Fund (LCRBDF) into higher accrual levels. Reclamation welcomes the opportunity to work with the Basin States to identify and prioritize the activities to be funded by appropriations received for the Salinity Control Program.

Funding – Colorado River Water Quality Improvement Program

DEPARTMENT OF INTERIOR - Reclamation: The Council recognizes Reclamation's efforts to continue to budget sufficient funds for required operation and maintenance of constructed units and for plan formulation, including the PVU alternatives studies and EIS effort. The Council also recognizes that Reclamation receives an appropriation to its Colorado River Water Quality Improvement Program (CRWQIP). While this program is outside of the Title II funding, there is meaningful overlap and benefits between the two efforts, including supporting staff and maintaining stream gaging and monitoring activities.

- Therefore, the Council requests that Reclamation support the funding of this line item so that it does not draw dollars away from implementation efforts under the Title II program.
- The Council requests that Reclamation continue to budget sufficient dollars, independent of the Basinwide Program funding, for O&M activities, planning, operations, and administration of the Program.

Response: Reclamation recognizes the benefit of appropriations in the CRWQIP to fund non-contract costs and other support activities so as to not draw away appropriations from implementation efforts. In recent years, Reclamation has been able to increase funding and transfer additional appropriations into the CRWQIP. Reclamation, when possible, will continue these efforts.

In FY2021, the CRWQIP received \$500K and was given an additional \$300K to help cover labor, travel, and acquisition staff costs for the Salinity Control Program. This funding is appropriations only and does not require a cost share. Reclamation is working to get funding for CRWQIP to a level of at least \$1M per year so very little if any Salinity Control Program dollars are used for non-project costs.

Funding Opportunity Announcement (FOA)

DEPARTMENT OF INTERIOR - Reclamation: The Council asks that Reclamation continue to adapt the FOA by listening to the needs and views of the applying entities. In particular, it notes the increasing opportunities to leverage different funding sources to create broader and more effective projects that benefit the larger community and watershed goals.

Response: Reclamation will continue to look for and work with entities contemplating salinity control projects and assist them in looking for opportunities to leverage different funding sources to plan broader and more effective projects.

DEPARTMENT OF INTERIOR - Reclamation: With the 2019 FOA now completed, the Council requests that Reclamation, working with the Forum and its Work Group, assess the strengths and weaknesses of the recent process and create a list of items to be addressed prior to the next FOA.

Response: Reclamation is working with the Forum and its Work Group to assess strengths and weaknesses of the 2019 FOA process. Reclamation, working with the Work Group, will address, prior to the next FOA, any items identified to improve the 2022 FOA process.

Staffing

DEPARTMENT OF INTERIOR - Reclamation: The Council notes that Reclamation has brought together a capable staff to effectively administer the Program. The Council notes that important to the overall efforts in the past has been an engineering position. This position has now been vacant for several years. The Council reiterates its strong recommendation that this position be filled soon with a capable individual who works solely on the Program.

Response: Reclamation agrees with the Council that the Upper Colorado Region has brought together an effective staff in the Water Quality Group. Region management is working with its Human Resources division to get this position reviewed, assessed, and filled as soon as possible.

Salinity Economic Impacts Model (SEIM)

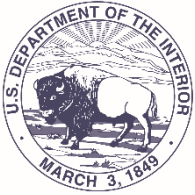
DEPARTMENT OF INTERIOR - Reclamation: The Council appreciates Reclamation's significant efforts to update the SEIM. The Council requests that Reclamation work with the Forum's Work Group to identify the next steps in improving our understanding and ability to model impacts of salinity levels.

Response: Reclamation is pleased to work with the Forum's Work Group in understanding the updated SEIM and learning the capabilities of the SEIM in modeling the economic impacts of salinity levels in the Colorado River.

Federal Accomplishments Report (FAR)

DEPARTMENT OF INTERIOR - Reclamation: The efforts of Reclamation to bring together the Federal Accomplishments Report each year in advance of the fall meetings is very helpful in the Council's review and evaluation of the Program, and the Council urges that this report continue to be provided.

Response: Reclamation will continue, as it has in the past, to provide the FAR to the Advisory Council before its fall meeting.



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Grand Junction, Colorado 81506
<https://www.blm.gov>



September 9, 2021

Mr. Bill Hasencamp, Chairman
Colorado River Basin Salinity Control Advisory Council
P.O. Box 54153
Los Angeles, CO 90054-0153

Dear Chairman Hasencamp:

Thank you for your recent recommendations in the Advisory Council's 2020 Annual Report on the Colorado River Basin Salinity Control Program. As requested, this letter responds to the Council's recommendations to the Bureau of Land Management (BLM).

Program Funding Recommendations (Pages 4-6)

In Table 1, the Advisory Council recommends that the BLM expend at least \$2,000,000 per year in FY2021 through FY2024 from the Aquatic Habitat Management Program for implementation of the Colorado River Basin Salinity Control Program. The BLM has funded activities to implement the Salinity Control Program at this level for the past several years and expects to continue this level of annual funding through FY2024, subject to Congressional appropriation measures. The BLM expects to expend additional available funds as appropriate to support related activities such as technical and education assistance and planning for future projects.

Specific Comments and Recommendations to the BLM (Pages 10-12)

1. *“Moving forward, the Council recommends that BLM continue to expend at least \$2.0 million for implementation of specific salinity control activities on public lands within the Basin.”*

The BLM has expended at least \$2 million annually for the past several years to support the implementation of salinity control activities in the Colorado River Basin and expects to continue this level of funding in future years, subject to Congressional appropriations.

2. *“The Council also recognizes and appreciates BLM's increased efforts to report expenditure of funds and project implementation to the Council and the Forum and to provide them with an opportunity to see proposed activities before they are implemented. The Council asks that BLM continue to do so and to work with other federal partners, the Forum, or its Work Group, to develop a method for reporting salinity improvement associated with such activities.”*

The BLM will continue to work with other Federal partners, the Forum, and its Work Group to improve reporting of expenditures, project implementation, and proposed activities. The BLM has initiated an effort to use a preliminary version of the APEX regional watershed model to quantify and report the effectiveness of management activities in retaining sediment

and salt on public lands. The BLM expects to expand this approach as ongoing efforts to refine and enhance the APEX model are completed.

3. *“The Council appreciates BLM’s efforts to create a better understanding of salt mobilization on public lands, including being involved in a number of presently ongoing studies in conjunction with ARS and USGS. The Council understands that culmination of these efforts is nearing and is anxious to hear the results of these studies. The Council asks that BLM work with the Science Team and the Forum’s Work Group in reporting out the results of these studies as they become available. The Council requests and understands that BLM will coordinate with the Work Group to know where studies have been reported (i.e., journals, etc.) and report the status of the overall BLM and ARS efforts, as well as plans moving forward.”*

The BLM will continue to coordinate with the Forum’s Work Group and Science Team to ensure awareness of reports published by science partners such as the U.S. Geological Survey (USGS), the U.S. Department of Agriculture Agricultural Research Service (ARS), and universities. The BLM will also work to distribute copies of such reports when available to the Forum Work Group and Science Team.

4. *“The Council also recognizes and appreciates the significant efforts expended by BLM in developing a basin-wide APEX model. It requests that as the model is developed, BLM will work closely with the Science Team and the Work Group on reporting progress, coordinating efforts, and seeking peer review and input.”*

The BLM and its university partners have made presentations on the APEX model to the Forum’s Work Group and will continue to provide updates as development and refinement of the APEX model progresses. The BLM and its university partners will continue to coordinate efforts with other Federal partners such as the USGS and the Bureau of Reclamation that maintain regional models for other objectives, to ensure consistent practices and information sharing occurs. The BLM and its university partners welcome additional input from the Forum’s Work Group and Science Team and will include them in future peer-review efforts.

5. *“As in the past, the Council notes significantly increased efforts by BLM to quantify and report the salinity savings associated with various BLM activities. The Council applauds these efforts. It recognizes that this is no small task. The Council recommends that BLM continue to refine the process and then report such to the Science Team and Work Group for peer review and input.”*

The BLM has initiated an effort to use a preliminary version of the APEX regional watershed model to quantify and report on the effectiveness of management activities in retaining sediment and salt on public lands. The BLM expects to expand this approach as ongoing efforts to refine and enhance the APEX model are completed. The BLM welcomes additional input from the Forum’s Work Group and Science Team and will include them in future peer-review efforts.

6. *“The Council has for many years recommended that BLM’s efforts include a salinity coordinator whose assignment would be to work exclusively on Colorado River salinity issues.*

The Council's vision is that the three implementing agencies, with their coordinators domiciled together, would move ahead as a team through daily interfacing of their coordinators."

The BLM's salinity program coordinator was located in Salt Lake City, UT for over a decade and interfaced with coordinators from the other Federal implementing agencies. In 2017, the BLM relocated this position to its National Operations Center to accelerate development of the APEX regional watershed model. Currently, the BLM has assigned the role of Colorado River Basin Salinity Control Program liaison to its headquarters staff. Although the BLM is not able at this time to re-establish a dedicated salinity coordinator in Salt Lake City, it believes these recent changes have made progress towards implementing the Council's vision.

7. *"The Council appreciates BLM's financial participation in the large USGS Upper Basin salinity trends study. As this study moves to the second phase and seeks to attribute identified trends to watershed processes, it requests that BLM provide the support, documentation and other assistance required by USGS to make the study as complete and robust in its analysis as possible.*

The BLM recognizes the potential benefits of the USGS Upper Basin trends study and will continue to provide support and assistance for this study as appropriate.

8. *"The Council recognizes the desire to improve the options for the replacement of wildlife values foregone. It appreciates BLM's efforts to find and participate in the establishment of such replacement, especially on federally administered lands where long-term maintenance and management can occur. The Council requests that BLM continue to be engaged with Reclamation, NRCS, and the USFWS in seeking out and establishing such wildlife areas."*

The BLM is committed to the conservation, restoration, and management of wildlife and aquatic habitat on public lands to provide the resource values and ecosystem services necessary to achieve the BLM's multiple use and sustained yield mandate. The BLM will continue to engage with other Federal agencies to identify and implement suitable restoration projects that meet the requirements for habitat replacement.

The BLM appreciates the Council's support and recommendations and will continue efforts to reduce salt and sediment loading from lands administered by the BLM within the Colorado River Basin. If you have additional questions, please contact Dr. Matt Preston, Acting Division Chief, Wildlife Conservation, Aquatics and Environmental Protection at 801-503-5411, mpreston@blm.gov, or Dr. Paula Cutillo, Senior Water Resources Specialist, Aquatic Habitat Management Program at 303-239-3873, pcutillo@blm.gov.

Sincerely,



Nada Wolff Culver
Deputy Director, Policy and Programs

cc: Melynda Roberts, Salinity Program Coordinator
U.S. Bureau of Reclamation Water Quality Group
125 S. State Street, Room 8100
Salt Lake City, Utah 84138

Don A. Barnett, Executive Director
Colorado River Basin Salinity Control Forum
226 South 200 West
Farmington, Utah 84025



United States Department of the Interior

FISH AND WILDLIFE SERVICE
445 W Gunnison Ave, Suite 240
Grand Junction, Colorado 81501



In reply refer to:
FWS/IR05/IR07

ES/CO: BR/Salinity
TAILS 06E24100-2021-CPA-0021

August 30, 2021

Bill Hasencamp, Chairman
Colorado River Basin Salinity Control Advisory Council
Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, CA 90054-0153

Dear: Mr. Hasencamp:

We have reviewed the Advisory Council Annual Report (Report) on the Colorado River Basin Salinity Control Program-2020, and offer the following response to comments addressed to the U.S. Fish and Wildlife Service (Service).

The Service participates in the Salinity Control Program by providing technical assistance on fish and wildlife habitat restoration, impact assessment, and management, through implementation of Federal statutes including the Endangered Species Act (ESA), National Environmental Policy Act, the Migratory Bird Treaty Act (MBTA), and the Bald and Golden Eagle Protection Act. The Service provides independent review and oversight of program aspects dealing with fish and wildlife resources, including our assessment of the degree to which fish and wildlife have received due consideration in project planning and incidental fish and wildlife values foregone have been replaced.

We continue to consult with the Bureau of Reclamation (Reclamation) and the Natural Resource Conservation Service (NRCS) under Section 7 of the ESA regarding water depletions associated with canal lining and piping projects, sprinkler systems, and habitat replacement projects; these affect the endangered fish in the Colorado River Basin and their critical habitats. Several other listed species occupy wetlands and riparian areas, such as the yellow-billed cuckoo (*Coccyzus americanus*), Southwestern willow flycatcher (*Empidonax traillii extimus*), and Ute ladies'-tresses orchid (*Spiranthes diluvialis*). Section 7 consultations are often necessary for salinity control projects that may affect these species as well.

In your report you acknowledge the role of the Service in finding, reviewing, and supporting viable wildlife habitat replacement projects, as well as reviewing and tabulating replacement

INTERIOR REGION 5
MISSOURI BASIN

KANSAS, MONTANA*, NEBRASKA, NORTH DAKOTA,
SOUTH DAKOTA

*PARTIAL

INTERIOR REGION 7
UPPER COLORADO RIVER BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

acres within each salinity control unit. We will continue these activities and assist the other agencies in moving the Salinity Control Program forward. We will continue to work with Reclamation and NRCS to come up with habitat replacement plans that all parties agree will provide long term habitat replacement. Also in this year's Report, the Advisory Council requested that the Service participate in a training presentation to the Salinity Control Program Work Group on how wildlife values are determined and tabulated. We are happy to assist in this regard and look forward to presenting along with Reclamation and/or NRCS to explain how wildlife values are calculated for each agency.

We continue to recognize that there is a need to consider "off-site" projects to be able to fully replace wildlife values foregone in several salinity control units. Because it has been challenging for NRCS and Reclamation to come up with replacement projects with willing landowners, the Service continues to remain flexible and will allow some off-site replacement to be credited to designated salinity control units if done according to mutually agreed upon protocol. As noted in your Report, the Advisory Council and the Service would rather have something on the ground and be proportional and concurrent, than to restrict wildlife replacement opportunities for only on-site replacement.

In early 2021 the Service assisted Reclamation with the development of the new In-Stream Habitat Quality Scoring Evaluation Criteria for use on stream restoration projects proposed as habitat replacement for salinity control projects. This effort adds increased flexibility and opportunity for habitat replacement projects to include in-channel habitat improvements with associated customized scoring criteria. These criteria do not replace the traditional scoring criteria, updated in 2018, but expand the options for habitat replacement to include stream habitat enhancements that can benefit not only riparian and wetland species, but also native aquatic species. These new stream criteria, now included along with the traditional Wildlife Habitat Evaluation Procedures for wetland and riparian habitats, add flexibility for a greater array of habitat replacement projects. These updated and expanded procedures facilitate habitat scoring for complex and innovative habitat enhancement/replacement projects such as that contemplated for Olsen Reservoir, within the Price-San Rafael salinity control unit, and the Price River downstream. The Salinity Control Coordinator has been, and will continue to be, directly involved with the habitat replacement component of this complex, multi-year, multi-agency effort.

The Service will continue to provide the Salinity Control Forum and Advisory Council updates on the latest relevant developments with regards to the MBTA and the ESA. And we will continue to work with the Federal partners to address fish and wildlife values forgone and assist with meeting their mitigation goals. Please contact Creed Clayton, Salinity Control Coordinator, on any wildlife habitat related issues at creed_clayton@fws.gov.

Sincerely,

for Ann Timberman
Western Colorado Supervisor

cc: Melynda Roberts, Program Coordinator, Colorado River Basin Salinity Control Program,
mroberts@usbr.gov

Don A. Barnett, Executive Director, Colorado River Basin Salinity Control Forum,
dbarnett@barnettwater.com



United States Department of the Interior
U.S. Geological Survey
Office of the Director
Reston, Virginia 20192

In Reply Refer To:
Mail Stop 100
GS21000614

Mr. Bill Hasencamp, Chairman
Colorado River Basin Salinity Control Advisory Council
P.O. Box 54153
Los Angeles, California 90054-0153

Dear Mr. Hasencamp:

Thank you for the opportunity to respond to the Advisory Council's comments and recommendations presented in the 2020 Annual Report on the Colorado River Basin Salinity Control Program (CRBSCP). We appreciate the Council's recognition of the responsiveness of USGS science support to CRBSCP information needs. We look forward to continuing to work with the CRBSCP to provide data, interpretation and analysis to facilitate the effective implementation of the Program.

We appreciate the Council's emphasis on timely results from USGS investigations. We continue to make progress toward completing and delivering results from multiple studies related to the modeling effort at the Paradox Valley Unit (PVU) in Colorado. These data and analyses are currently being drafted by USGS personnel to be disseminated to the CRBSCP, the Bureau of Reclamation's (Reclamation) PVU staff, and ultimately to the public. The USGS continues to work on investigations related to the fault zone near Pah Tempe Hot Springs in an effort to characterize the hydrogeologic factors associated with the spring complex. Current efforts have focused on investigations related to the hydrologic connection of an existing Reclamation well discovered onsite and the spring complex. The USGS and Reclamation will continue to work closely with the Washington County Water Conservancy District to complete the study. The USGS initiated an assessment of long-term salinity trends in the Upper Colorado River Basin as part of a three-year study to investigate driving mechanisms for variation in salinity loading to the Colorado River through time. The statistical analysis of long-term trends observed at streamgages located in the Upper Colorado River Basin was published in the Spring of 2021. We will continue to work with the CRBSCP as well as federal and state agencies as work begins to identify causes of salinity trends. We have been pleased with CRBSCP interest as a stakeholder within the newly identified Colorado Headwaters NGWOS Basin. We anticipate the NGWOS program providing informative insight into many processes that relate to water quality and salinity loading in the Colorado Headwaters. Through recent reviews of data gaps

associated with salinity control in the Upper and Lower Basins of the Colorado River, we have been able to produce tools to help program managers make informed decisions about new salinity control areas.

We encourage the Council to communicate to Mr. Tom Marston, Investigations Chief at the USGS Utah Water Science Center and current USGS representative to the Forum, whenever it wishes to be briefed on USGS activities in support of the CRBSCP. We will be glad to report out on progress and results, as appropriate, at any stage of the work.

The USGS will continue to be an active participant in the Salinity Control Program Science Team and recognizes the benefit of that participation in the development of collaborative and relevant research in support of CRBSCP activities. In particular we recognize the importance of long-term data collection to the CRBSCP and 20-gage network in providing key data for the management of salinity in the UCRB.

Again, let me thank you for the opportunity to respond to and address the Council's comments and recommendations. If you would like any additional information or have questions, please contact Tom Marston ((801) 908-5030, tmarston@usgs.gov).

Sincerely,

JAMES D.
APPLEGATE

Digitally signed by JAMES D.
APPLEGATE
Date: 2021.07.22 23:34:29 -04'00'

David Applegate
Associate Director for Natural Hazards
Exercising the Delegated Authority of the Director
U.S. Geological Survey

Copy to:

Don A. Barnett, Executive Director
Colorado River Basin Salinity Control Forum
106 West 500 South, Suite 101
Bountiful, Utah 84010
dbarnett@barnettwater.com

Kib Jacobson, Designated Federal Officer
Colorado River Basin Salinity Control Advisory Council
125 S. State Street, Room 7311
Salt Lake City, Utah 84138
kjacobson@usbr.gov



United States Department of Agriculture

October 12, 2021

Mr. Bill Hasencamp
Chairman
Colorado River Basin Salinity Control Advisory Council
Post Office Box 54153
Los Angeles, California 90054-0153

Dear Mr. Hasencamp:

Thank you for your letter of June 28, 2021, to the Secretary of Agriculture, Thomas J. Vilsack, enclosing the 2020 Annual Report on the Colorado River Basin Salinity Control Program. The Secretary has asked me to respond on his behalf and we apologize for the delayed response.

The U.S Department of Agriculture and the Natural Resources Conservation Service appreciates the support and commitment of the Colorado River Basin Salinity Control Advisory Council to reduce salinity loading in the Colorado River Basin. Your long-standing support to improve the environment and economies of Colorado-River-water users is to be commended. The enclosure addresses each of your comments and recommendations as requested.

Again, thank you for writing and for your continued leadership and support of Colorado River Basin salinity control activities.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry J. Cosby", with a long horizontal flourish extending to the right.

Terry J. Cosby
Chief

Enclosure

Natural Resources Conservation Service
P.O. Box 2890
Washington, D.C. 20013

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U.S. DEPARTMENT OF AGRICULTURE (USDA)
Natural Resources Conservation Service (NRCS)

RECOMMENDATION

The Council has recognized in the past and continues to recognize and express appreciation for the key and essential role that NRCS has played and continues to play in reducing the salt load of the Colorado River and its tributaries, creating local environmental benefits as well as benefits for downstream agricultural and M&I users. NRCS has been a consistent and very productive partner in the effort. Providing these benefits is the result of a coordinated effort between the Colorado, Utah, and Wyoming state NRCS offices in the Upper Basin and also the cooperation they have provided when working with other federal agencies, the TAG, the Forum, and the Work Group.

The Council appreciates the level of funding made available to the salinity control effort through EQIP despite the myriad of demands placed on program managers in allocating limited EQIP funds. Traditionally, on-farm salinity control has been some of the most cost-effective salinity efforts available. While much of the less expensive salinity control has now been accomplished and there has been a notable increase in on-farm salinity control costs in the last couple of years, cost-effective salinity control opportunities still exist.

Continued funding is needed to meet the goals identified in the 2020 Review for the Department of Agriculture.

- The Council requests the three State Conservationists and their staff continue to develop a realistic Three-Year Funding Plan and that NRCS program managers continue to allocate salinity EQIP funds to the state offices consistent with such plan.

RESPONSE

NRCS will continue to allocate funding and staff to state offices consistent with the State Conservationists' Three-Year funding plan in line with available resources and National, State and Local priorities.

RECOMMENDATION

The Council also continues to recognize that much of NRCS's past success in implementing salinity control comes from efforts beyond simply servicing EQIP contracts. It comes from talented staff working with producers in properly operating and managing on-farm improvements. A USGS study of NRCS data over a number of years in the Grand Valley shows a wide range in effectiveness derived from implementation and maintenance of the same practices, confirming the importance of the continual need for training, and assisting producers. It has come to the Council's attention that occasionally the limitation in implementation of the Program is tied not to lack of available funding, but to lack of available staff to service needed contracts.

- The Council requests that NRCS evaluate Program limitations and, if needed, make adjustments so as to provide sufficient staffing to meet Program objectives. The Council requests that NRCS report back to the Council its review and findings.

RESPONSE

NRCS will continue to provide funding and staff to implement cost-effective salinity control measures in line with available resources and National, State and Local priorities.

RECOMMENDATION

The Council believes that it is the dedication, coupled with effective and hard work of NRCS personnel, which has made the NRCS salinity control program such a success. The Council appreciates the attentiveness of NRCS Washington staff in the Program's success. The Council also recognizes and appreciates the dedicated attention that the three State Conservationists have given the Program and it invites them to continue to frequently participate in Program meetings, discussions and activities and provide input, expertise and guidance as we move the overall Program forward.

- The Council simply requests that NRCS continues to remain an engaged and proactive partner as it has in the past.

RESPONSE

State Conservationists will continue to support the Program by attending and participating in meetings, discussions, and activities as necessary and ensure that

NRCS staff continue to provide adequate support to the Program in line with National, State, and Local priorities according to available resources.

RECOMMENDATION

The Council has urged in the past the employment of an NRCS salinity coordinator with authorities and resources to work anywhere, as needed within the seven Colorado River Basin States. NRCS has now hired two coordinators with complimentary but differing roles and with other assignments beyond salinity.

- The Council would simply urge that these coordinators are given sufficient time and resources to continue NRCS's participation in the overall Program efforts and that they be given the latitude and assignment to coordinate salinity control efforts throughout the seven states.

RESPONSE

NRCS Salinity Control Program Coordinators are authorized to coordinate Salinity Program activities throughout the states and represent NRCS to cooperating agencies and States to implement the Program.

RECOMMENDATION

Last year the Council requested that NRCS provide data and an analysis of the varying cost effectiveness of EQIP contracts by practice in the various salinity project areas. The Council very much appreciates NRCS's report which showed that overall implementation of EQIP contracts continues to be a very cost-effective component of the salinity control program.

- The Council requests that NRCS continue to monitor and report cost effectiveness of EQIP in providing salinity control.

RESPONSE

NRCS will continue to monitor and report cost effectiveness of EQIP salinity control measures to the Forum, Work Group, and Advisory Council.

RECOMMENDATION

For some time, the Council has looked forward to the opportunity afforded in the 2018 Farm Bill to provide EQIP contracts to Water Management Entities. The Council believes that such contracts will potentially fill a gap between Reclamation's off-farm program and regular EQIP on-farm contracts with producers. The Council appreciates NRCS now rolling out this part of the program and working with the Colorado River Basin States on its implementation.

- The Council requests that the State Conservationists and Washington staff continue to work with the States as this opportunity is implemented.

RESPONSE

NRCS State Conservationists and Washington staff will continue to work with the States to develop effective implementation strategies to implement Salinity Control measures through partnership with Water Management Entities as authorized in the 2018 Farm Bill.

RECOMMENDATION

In similar manner, the Council expresses appreciation to NRCS for bringing to the states creative approaches to using other tools such as RCPP or PL566 to meet Program goals and objectives.

- It simply requests that NRCS continue in this collaborative vein as we seek to improve the water quality of the Colorado River System.

RESPONSE

NRCS will continue to seek to implement effective salinity control measures by leveraging available programs in a collaborative manner to meet Program goals and objectives.

RECOMMENDATION

In the future, the Salinity Control Program may need to turn more and more to grazing lands (rangelands). BLM, ARS and USGS are now engaged in studies, in part funded by Basin States Program funds, to unravel the complex nature of salt loading from grazing lands. NRCS's Salinity Coordinator has been most helpful as this effort has moved ahead in the past. NRCS has leading knowledge in some aspects of this complex puzzle.

- The Council requests that NRCS continue to support this effort in any way it can.

RESPONSE

NRCS will continue to coordinate with BLM, ARS, and USGS to provide NRCS programs and technical expertise that facilitate salinity control on grazing land.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region8

July 27, 2021

Ref: 8WD-CWP

Bill Hasencamp, Chairman
Colorado River Basin Salinity Control Advisory Council
P.O. Box 54153
Los Angeles, CA 90054-0153
Email: whasencamp@mwdh2o.com

Re: Comments on the 2020 Annual Report on the Colorado River Basin Salinity Control Program

Dear Mr. Hasencamp:

Thank you for your letter transmitting the 2020 Annual Report on the Colorado River Basin Salinity Control Program. Consistent with your recommendation, we will continue to support individual states and tribes, where applicable, as they develop and submit adopted water quality standards for approval.

We appreciate the recognition of EPA's participation and support with the 2020 Water Quality Standards for Salinity, Colorado River System, triennial review process. EPA will continue to provide updates on the status of its efforts to approve such standards.

EPA appreciates the recognition by the Council for our involvement with Tribes in water quality control efforts in the Colorado River Basin. EPA will continue to provide updates on the number of tribes which have received TAS designation and if they have adopted the Forum's policies into their NPDES rules.

Finally, staff at EPA Region 8 will continue to represent EPA in the Colorado River Salinity Control coordination efforts.

Thanks again for all your work and support on this matter.

Respectfully,

Judy Bloom, Manager
Clean Water Branch
Water Division

cc: Michael S. Regan, Administrator
Deborah Thomas, Acting Regional Administrator (Region 8)
Deborah Jordan, Acting Regional Administrator (Region 9)
David Gray, Acting Regional Administrator (Region 6)

Kib Jacobson
Program Manager, Colorado River Basin Salinity Control Forum
U.S. Bureau of Reclamation

Don A. Barnett
Executive Director, Colorado River Basin Salinity Control Forum