APPENDICES

Minutes of Meeting

Colorado River Basin Salinity Control Advisory Council
June 5, 2024
Durango, Colorado

Appendix A

Attendance Roster

Colorado River Basin Salinity Control Advisory Council
Meeting June 5, 2024
Durango, Colorado

ATTENDANCE ROSTER

COLORADO RIVER BASIN SALINITY CONTROL ADVISORY COUNCIL MEETING
Durango, CO and Via Zoom
June 5, 2024

NAME	REPRESENTING
Barnett, Don	Colorado River Basin Salinity Control Forum Farmington, UT
Barnett, Jacob	Colorado River Basin Salinity Control Forum Farmington, UT
Boozer, Astor	NRCS Washington, D.C.
Boswell, Ammon	NRCS Salt Lake City, UT
Brich, Sol	Wyoming Water Development Commission Cheyenne, WY
Broderdorp, Kurt	US Fish and Wildlife Service Grand Junction, CO
*Burns, Andrew	Southern Nevada Water Authority Las Vegas, NV
Busch, Frederick	US Bureau Reclamation Grand Junction, CO
Byam, Jackie	NRCS Cheyenne, WY
Callister, Kathy	U.S. Bureau Reclamation Salt Lake City, UT
Collins, Casey	Southern Nevada Water Authority Las Vegas, NV
Cutillo, Paula	U.S. Bureau of Land Management Lakewood, CO
Eskew, Stacey	NRCS Denver, CO
Evans, Clint	NRCS Denver, CO
Ferrantelli, Charlie	Wyoming State Engineer's Office Cheyenne, WY

Fillerup, Anders	NRCS Roosevelt, UT
Freouf, Amber	NRCS Denver, CO
Fullard, Clarence	U.S. Bureau of Reclamation Salt Lake City, UT
Fulsome, Owen	U.S. Bureau of Reclamation Yuma, AZ
*Hasencamp, Bill	Metropolitan Water District of So. California Los Angeles, CA
*Hasenyager, Candice	Utah Division of Water Resources Salt Lake City, UT
*Johnson, Kristen	Arizona Department of Water Resources Phoenix, AZ
*Jordan, Erin	Arizona Department of Environmental Quality Phoenix, AZ
Kanzer, Dave	Colorado River District Glenwood Springs, CO
Leib, Len	USGS Grand Junction, CO
*Mackey, John	Utah Division of Water Quality Salt Lake City, UT
Marston, Tom	U.S. Geological Survey Salt Lake City, UT
Maurer, Ronnie	NRCS Washington, D.C.
McGettigan, Scott	Utah Division of Water Resources Salt Lake City, UT
Mead, Aaron	Metropolitan Water District of So. California Los Angeles, CA
*Mitchell, Rebecca	Colorado River Water Conservation Board Denver, CO
*Morey, Jack	Wyoming State Engineer's Office Cheyenne, WY
*Neuworth, Jessica	Colorado River Board of California Los Angeles, CA

Olsen, Jay	Utah Department of Agriculture & Food Salt Lake City, UT
*Price, Sara	Colorado River Commission of Nevada Las Vegas, NV
Quilter, Mark	Utah Department of Agriculture & Food Salt Lake City, UT
Randall, Joshua	Central Arizona Project Phoenix, AZ
Rheinheimer, David	Colorado River Board of California Los Angeles, CA
Roberts, Melynda	U.S. Bureau of Reclamation Salt Lake City, UT
*Robbins, David	Hill and Robbins Denver, CO
Rhoderich, John	New Mexico Environment Department Rio Rancho, NM
*Rowan, Nicole	Colorado Water Quality Control Division Denver, CO
Skeie, Erik	Colorado Water Conservation Board Denver, CO
Sobien, Helen	Interstate Stream Commission Sant Fe, NM
Sondergard, Jedd	U.S. Bureau of Land Management Grand Junction, CO
Studenka, Jeff	Utah Division of Water Quality Salt Lake City, UT
Traynham, Lee	U.S. Bureau of Reclamation Grand Junction, CO
Turkett, Warren	Colorado River Commission of Nevada Las Vegas, NV
Turkula, Adam	NRCS Park City, UT
Vaporis, Katie	NRCS Cheyenne, WY
Walker, Alex	U.S. Bureau of Reclamation Salt Lake City, UT

*Waterstreet, David	Wyoming Dept. of Environmental Quality Cheyenne, WY

*Indicates an Advisory Council member or individual representing an Advisory Council member

Appendix B

Agenda

Colorado River Basin Salinity Control Advisory Council
Meeting June 5, 2024
Durango, Colorado

AGENDA
COLORADO RIVER BASIN SALINITY CONTROL ADVISORY COUNCIL
June 2024

Holiday Inn & Suites Durango – Downtown
21636 Highway 160 West, Durango, CO
Virtual Option

Advisory Council (AC) Start Time: Wednesday, June 5, 2024, 1:30 PM, MDT

Designated Federal Officer: Clarence Fullard

Presiding: Chairman Bill Hasencamp

I.	Welcome and Introductions	Hasencamp
II.	Opening Comments	Fullard
	a. Renewal of AC Charter	
III.	Review and approval of agenda	Hasencamp
IV.	Draft Minutes of the 2023 Fall AC Meeting	
	a. Review	Fullard
	b. Action	Hasencamp
V.	FACA Appointments and Rules	Fullard
VI.	2023 Advisory Council Report Responses	Hasencamp/Fullard
	a. U.S. Bureau of Reclamation	Fullard
	b. Natural Resources Conservation Service	Anders Fillerup
	c. U.S. Geological Survey	Tom Marston
	d. Bureau of Land Management	Paula Cutillo
	e. U.S. Fish & Wildlife Service	Kurt Broderdorp
	f. Environmental Protection Agency	Peter Ismert
VII.	Items from the Forum	Vice-Chair Rebecca Mitchell
VIII.	Lower Colorado River Basin Development Fund Update	Jolaine Saxton
IX.	Basinwide Program	Melynda Roberts
	a. Project Updates	Roberts
X.	Basin States Program (BSP)	
	a. Program Status	Roberts

	b. Agency Contracts	Roberts
XI.	Technical Advisory Group (TAG) BSP Funding Recommendations	
	a. Studies, Investigations, and Research (SIR) Proposals - 2024	Marston/Mead
	b. TAG recommendation to AC	Mead
	c. Recommendation of AC to Reclamation	Hasencamp
XII.	Items for Forum	Mitchell
XIII.	Public Comment	Hasencamp
XIV.	Other Business/Action	Hasencamp
Anticipated Meeting Adjournment:		**5:00 PM MDT**

Appendix C

FACA Appointments and Rules

Colorado River Basin Salinity Control Advisory Council
Meeting June 5, 2024
Durango, Colorado

BUREAU OF RECLAMATION

Colorado River Basin Salinity Control Advisory Council

Clarence Fullard

June 5, 2024

Federal Advisory Committee Act

- The Federal Advisory Committee Act (FACA) was enacted in 1972
  - To ensure that advice by advisory committees is objective and accessible to the public.
- Salinity Control Advisory Council
  - Formed in section 204 of the 1974 Salinity Control Act.
  - Nearly 50 years old.
  - Statutory FACA group – unlike many others.
  - Same makeup as the Forum, which was created one year earlier.
- Up to 3 members per state. Governors of each state appoint members.
  - Currently 20 members (NV has 2).

Advisory Council Appointments

- When new members are appointed, attempt to obtain in writing the authority for a member to designate their own alternate.
- Good:
  - "With this appointment I grant Mr./Ms. the ability to designate his/her alternate or proxy should she not be able to participate in meetings."
- Better:
  - "I hereby authorize them and their successors, unless otherwise rescinded by me or future Governors, authority to designate their respective alternates or proxies to the Forum and Council should they not be able to participate in meetings or otherwise conduct the business of the Forum or Council, respectively."

Purpose of the Advisory Council

- The Council:
  1. Acts as liaison between both the Secretaries of Interior and Agriculture and the Administrator of the Environmental Protection Agency and the States.
  2. Receives reports from the Secretary on the progress of the salinity control program.
  3. Recommends to both the Secretary and the Administrator of the EPA appropriate studies of further projects, techniques, or methods for accomplishing the purposes of the Act; and
  4. Provides to the Secretary of the Interior advice and consultation regarding implementation of the Basin States Program to carry out salinity control activities.

Summary

- Advisory Council is your open and public dialog with federal agencies.
- A place to provide official and public recommendations.
- Opportunity to provide recommendations that must move up the food chain for review, response, and signature.
- Opportunity to provide recommendations on project funding.
- Appointments are relatively easy – no call for nominations, no White House review.
- A legacy FACA group that is 50 years old.

Clarence Fullard

Water Quality Group Chief

Colorado River Basin Salinity Control Program Manager

Bureau of Reclamation -- Upper Colorado Regional Office

Salt Lake City, Utah

BUREAU OF RECLAMATION

Appendix D

USGS Science Support

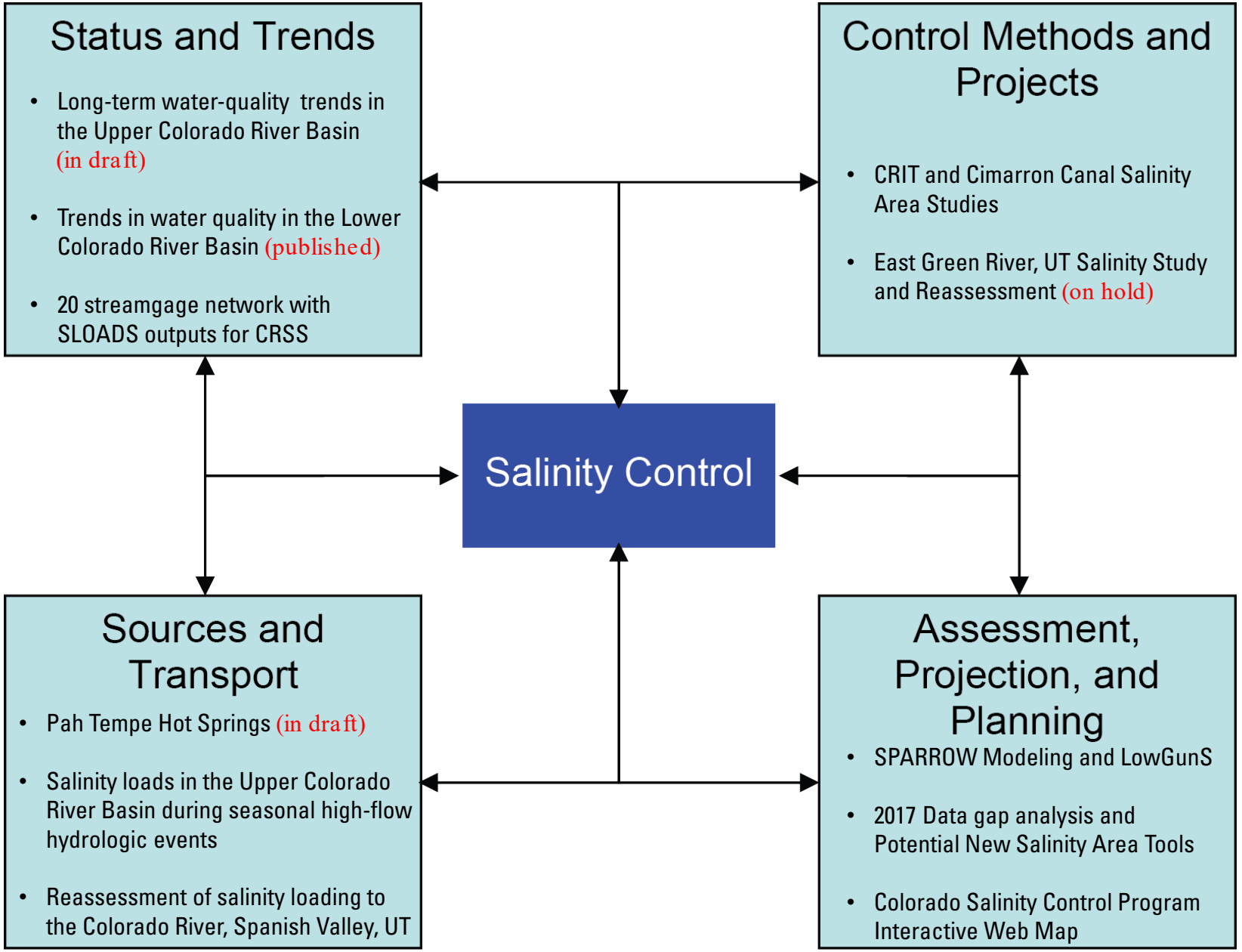
Colorado River Basin Salinity Control Advisory Council
Meeting June 5, 2024
Durango, Colorado

USGS Science Support

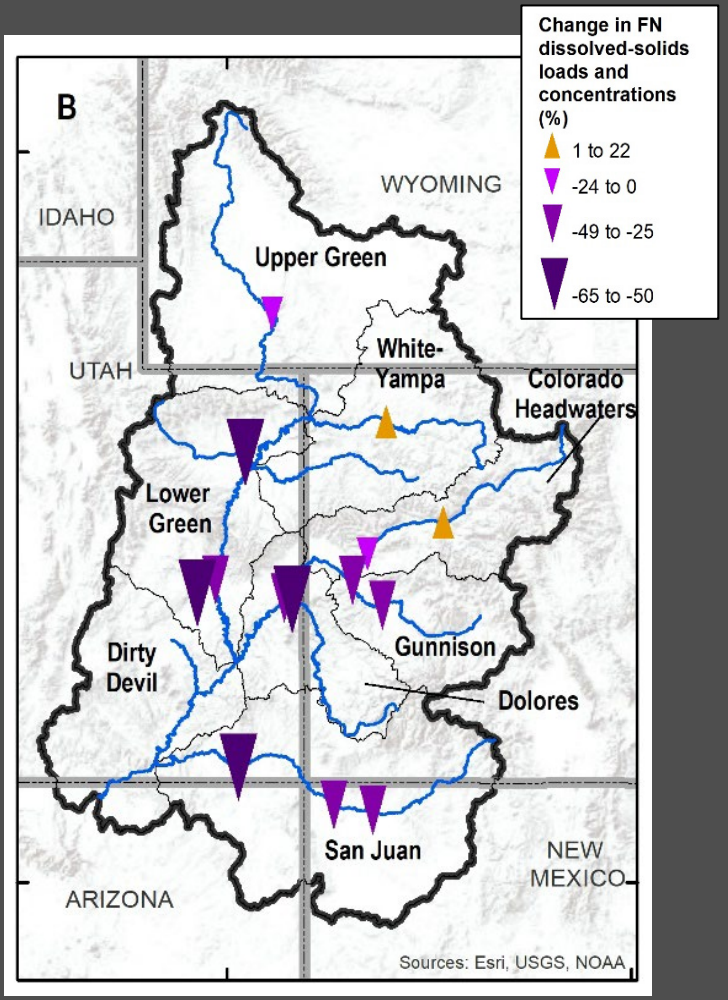
- Estimation of salinity loads and yields
- Identification of salinity sources and transport processes
- Development of models and tools
- Assessment of salinity control projects
- Assessment of salinity point sources

USGS Science Support for the Colorado River Salinity Control Program

- Currently funded and ongoing efforts

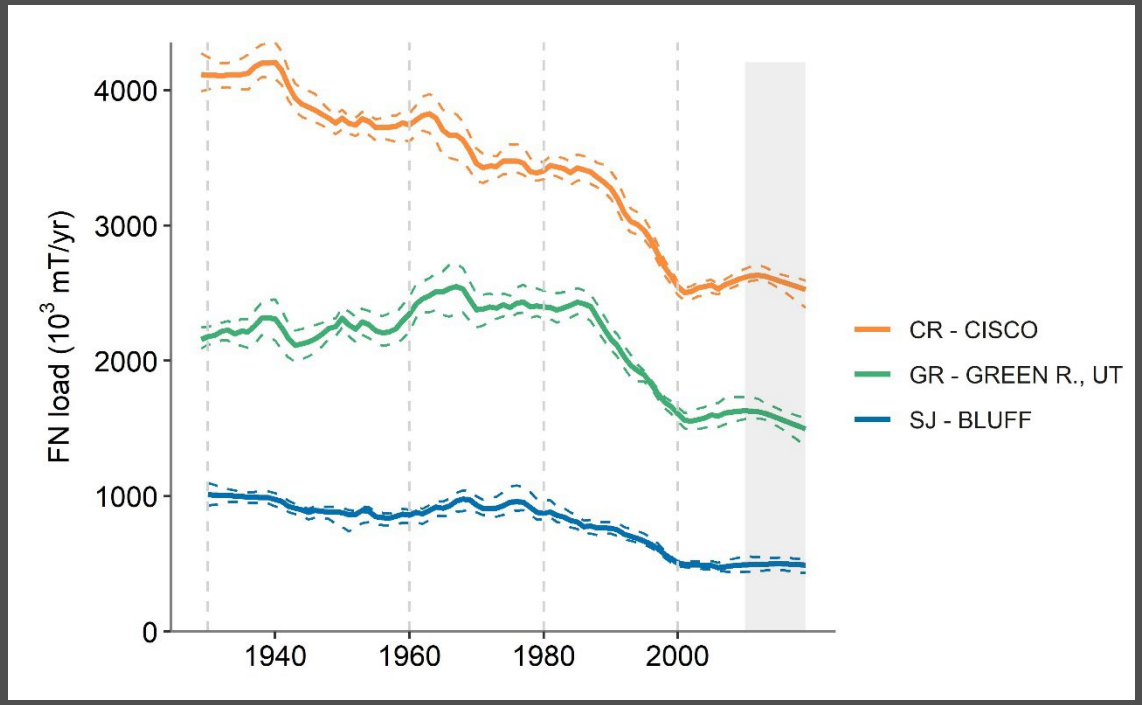


Substantial and widespread declines in salinity loads and concentrations were observed across the UCRB during the 20th century



Decreases observed as early as the 1940s

Unparalleled rates of decline from 1980 to 2000



Pace and extent of decrease declines in early 2000s

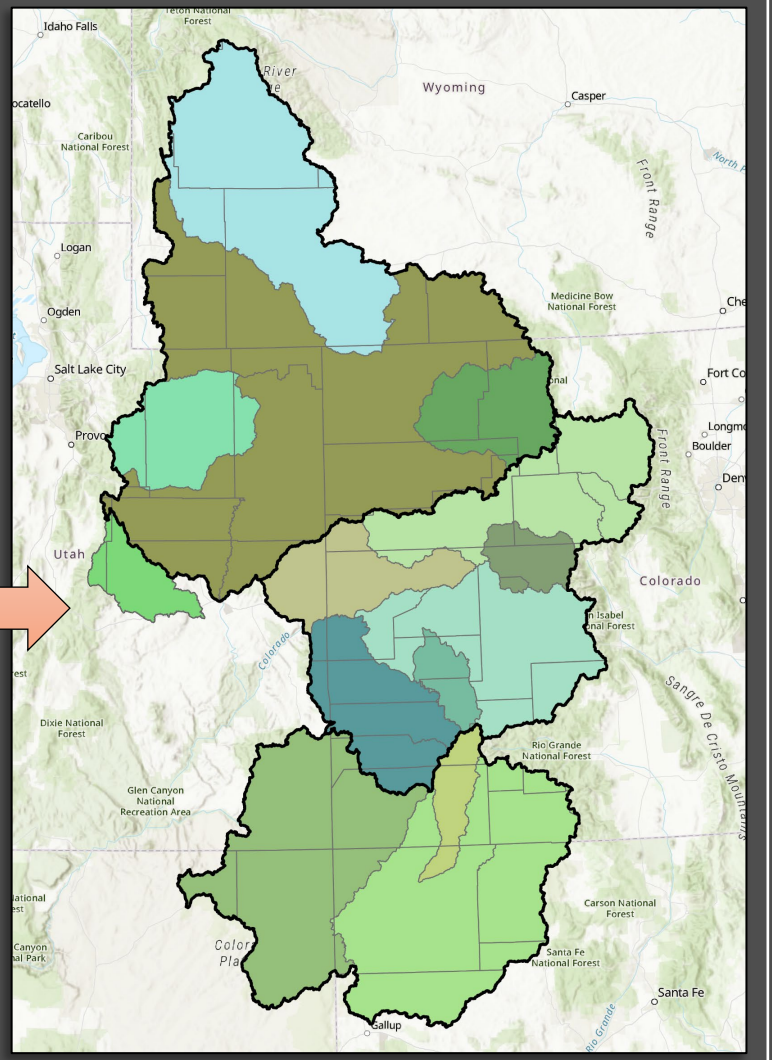
The timing and extent of observed salinity trends suggest that broad, regional changes affected salinity transport in the UCRB during the 20th century

UCRB Long-term Trends

Methods: Quantify trends in watershed attributes:
Collating UCRB landscape data

Raster Data	Climate (precip, temp, snow, ET)	1913 – 2017
	LCMAP (Land Change Monitoring, Assessment, and Projection) land use classifications	1985 – 2020
County Level	USDA Livestock Census	1925 – 2010
	USDA Cultivated Agriculture	1925 – 2010
Point Data	Oil and Gas wells	1925 – 2010
	USACE NID Dams and Reservoirs	1925 – 2012

Three chapter draft complete – currently under review



Preliminary information-subject to revision. Not for citation or distribution.

No Assessment

Kane Springs, Utah: No funding request.

Previous investigation by Shope (2014) indicate very little loading occurs in this area.

"Results of the four synoptics indicate negligible dissolved solids loading to the Colorado River throughout the study reach, with the exception of the Green River. There was no significant increase in Colorado River dissolved-solids loads in the reach that bracketed the Intrepid Potash plant. The average dissolved-solids load contribution from the Green River to the Colorado River was about 22 percent, while the dissolved solids loads from the remaining tributaries were less than 0.33 percent."

********** All costs are preliminary estimates and subject to revision. They are intended to provide a ballpark range of potential cost for use in further discussion. **********

Short term assessment and re-evaluation

CRIT, Arizona: 5-10k

Location not originally on Data Gap project list. Added at the request of Reclamation. Salinity concentration data is missing below the CRIT tribal boundary. A sampling location near the downstream edge of the boundary would help inform how much salinity is picked up through the basin, including potential unmeasured groundwater springs and seeps. COLORADO RIVER AT PALO VERDE DAM, CA-AZ may be a good location to do some periodic TDS sampling. Site almost perfectly brackets CRIT. After a few years of data collection, loads could be estimated for the area and a determination regarding next steps could be made.

Montezuma, Colorado/Utah: 30k

The MONTEZUMA CREEK NEAR BLUFF, UTAH - 09378600 site could be established first with no additional sites and used to determine the nature of stream runoff in the basin as well as a preliminary assessment of salinity sources. If rainfall and snowmelt events seem to be the main source of salinity from this basin, there may not be a practical application for salinity control.

White River, Colorado: 24k*

The SCF provided 24k in funding for USGS to sample TDS in the Upper White Basin. USGS will report out on the salinity levels observed. White River basin was ranked 14 in SPARROW and Work Group ranking process. This is a place holder. White River was not on the original list for Data Gap Analysis but there was a good opportunity to get TDS data in the basin leveraging other unrelated program.

Cimarron Canal, Colorado: 5-10k

USGS measured considerable seepage from the Cimarron canal. Work group members and Reclamation wanted a better idea of the amount or salinity 'cap' for the basins that the Cimarron Canal runs through (Squaw Gulch). Reclamation collected some data for Squaw, but it was in 2018, which was extremely dry. Additional field data is needed.

*Funds have already been received and task is complete.

Assessment With Existing Data

Yampa River, Colorado: 150-175k

There is ongoing TDS data collection at several locations in the Yampa Valley. There is also an extensive amount of historic TDS data in many areas of the basin that could be used to estimate salinity budgets. Several sites would also have enough data to look at TDS trends as a means to determine how much historic levels have changed. This is important when trying to understand the utility of some of the older data sets. There may be a need for some field reconnaissance of canals and tribs., but that should be minimal (1- or 2-day trips). No new instrumentation would be deployed. Some assumptions about natural loads as well as on and off farm loading would be made using existing data and other research. Product would be a citable USGS report.

Animas River, Colorado: 150-175k

There is ongoing TDS data collection and water-quality monitor deployment at several locations in the Animas Valley. Much of this data collection is due to the Gold King Mine spill in 2017. There is also an extensive amount of historic TDS data in many areas of the basin that could be used to estimate salinity budgets. This large amount of historic data is also related to legacy mine drainage in the area. There are two sites in the Animas Basin that would have enough data to look at TDS trends as a means to determine how much historic levels have changed. This is important when trying to understand the utility of some of the older data sets. As with the Upper Yampa, there may be a need for some field reconnaissance of canals and tribs. but that should be minimal (1- or 2-day trips). No new instrumentation would be deployed. Some assumptions about natural loads as well as on and off farm loading would be made using existing data and other research. Product would be a citable USGS report.

Field Assessment

San Miguel, Colorado: 250k

While the Upper San Miguel River Basin has some long term and current TDS data available in the basin, the basin is somewhat data poor with respect to sites with good sample density and current data collection. A comprehensive understanding of salinity loading within the basin would require numerous additional monitoring activities. There may also be a need for 2 water quality monitors in the San Miguel River if there is excessive management/delivery of water for irrigation and other uses. The monitors would measure specific conductance and temperature every 15 minutes. This record would help better estimated salinity loads relative to periodic samples. This approach is often needed when river stage or rate fluctuates excessively and cannot be represented by periodic data collection alone.

Upper San Juan, Colorado: 300k

Currently there are no sites in the Upper San Juan Basin where salinity concentration or load data are available. Based on these and other identified data gaps there are many areas that would require additional monitoring to quantify TDS concentrations and loads within the Upper San Juan River Basin. Additional monitoring needs include some irrigated and non-irrigated areas that have been identified as possible sources of salinity loading. See Upper San Juan tab for monitoring details.

******Based on the proximity of the SAN JUAN RIVER NEAR ARCHULETA, NM - 09355500 and the SAN JUAN RIVER AT HAMMOND BR NR BLOOMFIELD, NM - 09357100, 1954-2013 gages, consideration should be given to combining these sites with the Middle San Juan River Basin assessment.***

Upper Green, Wyoming: 300-350k

While the Upper Green River has some long term and current TDS data available in the basin, the basin appears to be data poor with respect to sites with good sample density and current data collection. A comprehensive understanding of salinity loading within the basin would require numerous additional monitoring activities. See Upper Green River tab for monitoring details.

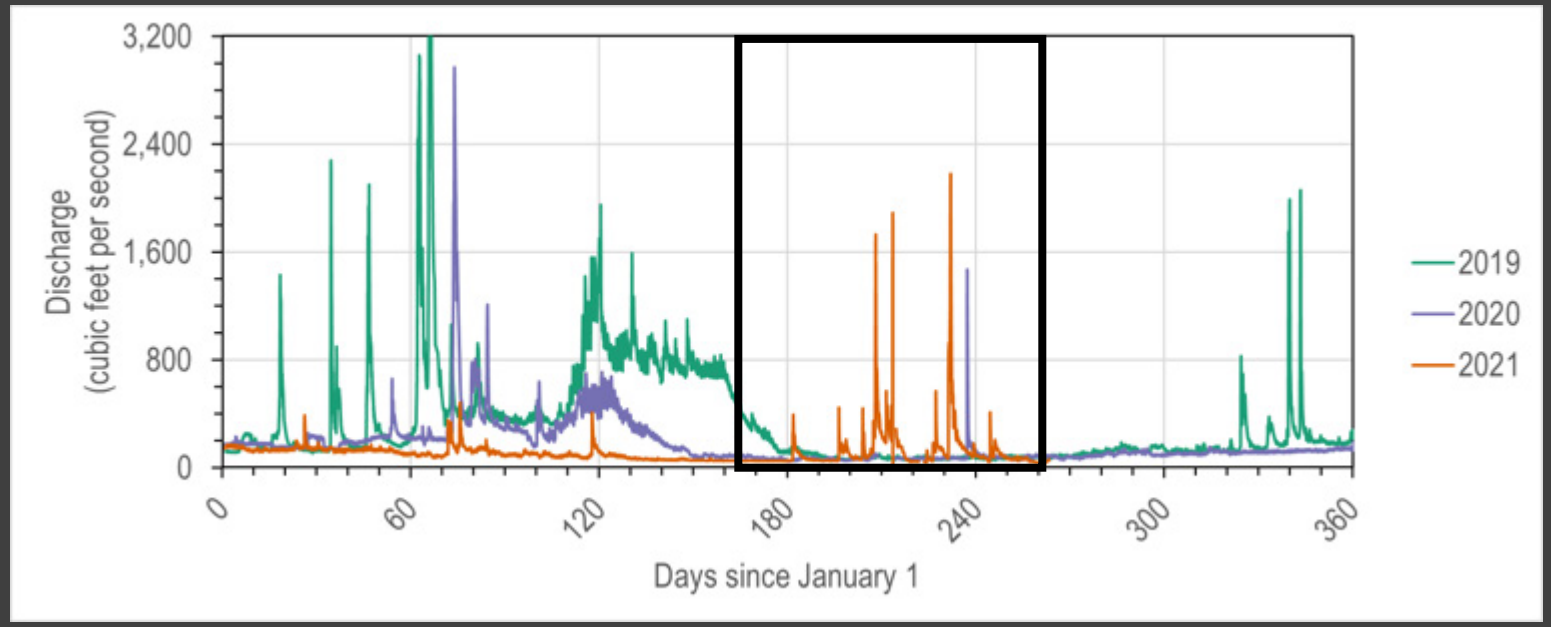
*****NEW FORK RIVER NEAR BIG PINEY, WY - 09205000 was not included in the Upper Green River Basin assessment and ranking but is a major agricultural area/tributary/salinity data source to the Upper Green River Basin. There is a streamflow gage, current TDS data collection, and historical data for the Newfork River dating back to the 1960's. Consideration should be given to adding this area to the proposed Upper Green River Basin area.**

Middle San Juan, New Mexico: 350-400k

There are numerous sites in the Middle San Juan River Basin that have associated TDS data with water-quality samples, however, there are also numerous gaps in the data. . These gaps limit the ability to reliably interpret TDS and develop an understanding of salinity loading occurring within the basin and ultimately, calculating the salinity load derived from basin. , the following instrumentation is needed for a complete assessment of salinity levels at these sites:

1. 4 continuously recording SC monitors
2. One streamflow gage (periodic streamflow measurements could be substituted since and compared to historic record)

Salinity loads in the Upper Colorado River Basin during high flow hydrologic events



Virgin River at Littlefield, AZ

Questions

Tom Marston – Utah Water Science Center (tmarston@usgs.gov)
Cory Williams – Colorado Water Science Center (cawillia@usgs.gov)

Please contact Melynda Roberts at mroberts@usbr.gov for the Basinwide Funding Schedule.

Appendix E

Basinwide Funding Schedule

Colorado River Basin Salinity Control Advisory Council
Meeting June 5, 2024
Durango, Colorado

Appendix F

Basinwide Program

Colorado River Basin Salinity Control Advisory Council
Meeting June 5, 2024
Durango, Colorado

Please contact Melynda Roberts at mroberts@usbr.gov for the BSP Funding Forecast.

Appendix G
BSP Funding Forecast

Colorado River Basin Salinity Control Advisory Council
Meeting June 5, 2024
Durango, Colorado

Colorado River Basin Salinity Control Program

Basinwide Program

Per the PL:

A Basinwide Salinity Control Program that the Secretary, acting through Reclamation, shall implement. The Secretary may carry out the purposes of this paragraph directly or may make grants, commitments for grants, or advances of funds to non-Federal entities under such terms and conditions as the Secretary may require. Such a program shall consist of cost-effective measures and associated works to reduce salinity from saline springs, leaking wells, irrigation sources, industrial sources, erosion of public and private land, or other sources that the Secretary considers appropriate. This program shall provide for mitigation of incidental fish and wildlife values that are lost as a result of the measures.

Basinwide Projects that are 100% funded

Contract Number	Contract Name	Tons of Salt Controlled	End Date	Contract Amount	Obligated to Date	Percent Obligated	Balance To Obligate	Expended to Date	Balance to Expend	Percent Expended
R18AC00073	Upper Stewart Ditch Pipeline Project	1,622	**12/31/2024**	$ 2,507,561	$ 2,507,561	100%	$ -	$ 2,360,003	$ 147,558	94%
R16AC00015	San Juan Dineh Project	3024(4381)	**12/31/2022**	$ 4,835,391	$ 4,835,391	100%	$ -	$ 4,834,003	$ 1,388	100%
R16AC00016	Uncompahgre East Side Phase 9 - Closed 5/8/2024	6,030	**1/1/2024**	$ 5,363,078	$ 5,363,078	100%	$ -	$ 5,363,078	$ -	100%
R18AC00074	Gould Canal Improvement Project B	2,579	**12/31/2024**	$ 3,565,986	$ 3,565,986	100%	$ -	$ 3,103,724	$ 462,262	87%
R18AC00075	Gould Canal Improvement Project A	3,175	**12/31/2024**	$ 4,389,567	$ 4,389,567	100%	$ -	$ 3,757,136	$ 632,431	86%
R20AC00011	Government Highline Canal - Reach 1A Project	3,083	**9/30/2025**	$ 4,691,940	$ 4,691,940	100%	$ -	$ 4,639,421	$ 52,519	99%
R20AC00014	Needle/Lone Rock Project	2,952	**4/30/2025**	$ 5,932,775	$ 5,932,775	100%	$ -	$ 5,365,967	$ 566,808	90%

Totals: Contract Amount $31,268,297, Expended to Date $29,423,332, Balance to Expend $1,862,965, Percent Expended 94%

Basinwide Projects that aren't 100% funded

Contract Number	Contract Name	Tons of Salt Controlled	End Date	Contract Amount	Obligated to Date	Percent Obligated	Balance To Obligate	Expended to Date	Balance to Expend	Percent Expended
R20AC00018	Turner and Lone Cabin Ditch Project	3,398	**12/31/2024**	$ 7,663,723	$ 5,439,950	71%	$ 2,223,773	$ 899,063	$ 4,540,887	12%
R20AC00019	Uncompahgre Phase 10 Project	3,501	**8/31/2027**	$ 7,084,913	$ 4,312,397	61%	$ 2,772,516	$ 117,978	$ 4,194,419	2%
R20AC00016	San Juan Dineh Shiprock Lateral Conversion Project – Phase II - Closed 4/25/2024	0	**9/30/2022**	$ 1,200,000	$ 996,200	83%	$ 0	$ -	$ -996,200	0%
R20AC00012	Grandview - Extensions, Diversion, Upper Middle & Lower Project	3,553	**3/31/2026**	$ 8,460,671	$ 6,199,885	73%	$ 2,260,786	$ 552,868	$ 5,647,017	7%
R20AC00020	Webber Ditch Pipeline	2,066	**9/30/2025**	$ 4,265,760	$ 1,700,000	40%	$ 2,565,760	$ 352,600	$ 1,347,400	8%
R20AC00010	GVIC - Canal Lining Phase 5 - 550 Project	743	**9/30/2025**	$ 1,455,222	$ 1,306,084	90%	$ 149,138	$ 1,306,084	$ -	90%
R24AC00128	Fire Mountain	756	**5/31/2028**	$ 1,426,793	$ 73,000	5%	$ 1,353,793	$ -	$ 73,000	0%
R24AC00129	Hartland Ditch Improvement	3472	**4/30/2029**	$ 6,582,836	$ 173,000	3%	$ 6,409,836	$ 15,324	$ 157,676	0%
R24AC00134	North Delta	3432	**6/30/2028**	$ 5,878,056	$ 243,488	4%	$ 5,634,568	$ -	$ 243,488	0%
R24AC00131	Bostwick Park	1237	**6/30/2027**	$ 2,258,371	$ 150,000	7%	$ 2,108,371	$ -	$ 150,000	0%
R24AC00133	GVIC Phase 6 - GS560 Project	677	**9/30/2028**	$ 1,357,246	$ 34,601	3%	$ 1,322,645	$ 4,333	$ 34,601	0%

Totals: Contract Amount $47,633,590, Obligated to date $20,628,605, Percentage Obligated 43%, Balance to Obligate $26,801,185, Expended to Date $3,248,250, Balance Expended $15,392,288, Percent Expended: 7%

Basinwide Fund Status

		FY 2023 Appropriations & Cost Share	FY 2024 Appropriations & Cost Share	FY 2025 Appropriations & Cost Share	FY 2026 Appropriations & Cost Share
	CONTRACT COSTS	$ 4,298,834	$ 9,439,196	$ 5,294,722	$ 6,776,992
	NON-CONTRACT COSTS (Labor and misc. expenditures)	$ 243,585	$ 500,000	$ 500,000	$ 500,000
	TOTAL OPEN AGREEMENTS	$ 4,542,419	$ 9,939,196	$ 5,794,722	$ 7,276,992
Funding	Appropriations S10	$ 6,003,000	$ 6,003,000	$ 6,000,000	$ 6,000,000
Funding	Cost Share X10	$ 3,000,000	$ 2,572,714	$ 2,571,429	$ 2,571,429
	TOTAL	$ 9,003,000	$ 8,575,714	$ 8,571,429	$ 8,571,429
Funding	Appropriations/Cost Share Totals	$ 9,003,000	$ 8,575,714	$ 8,571,429	$ 8,571,429
Funding	Carry over	$ 792,403	$ 5,252,984		
Costs	Contract/Non Contract Totals	$ 4,542,419	$ 9,939,196	$ 5,794,722	$ 7,276,992
	Final Account Numbers	$ 5,252,984	$ 3,889,502	$ 2,776,707	$ 1,294,437

Basin States Program

Per the PL:
A Basin States Program that the Secretary, acting through the Bureau of Reclamation, shall implement to carry out salinity control activities in the Colorado River Basin using funds made available under section 1595(f) of this title. (Basin States cost share funds)

State Agreements:

- Promote the Basin Wide and Basin States Programs (USBR) to potential applicants.
- Work with state, regional, and local groups to develop plans for salinity control and water efficiency projects.
- Assist Reclamation, NOFO awardees, and others with implementation of salinity control, habitat replacement, and projects.
- Assist with Wildlife and Cultural Resource needs.
- Stay informed with the technologies and science of salinity control, water conservation / efficiency, and regulations affecting agriculture, irrigation, and natural resource management.

FWS Contract:

- Provide written and/or verbal evaluations recommendations to Reclamation for the planning, design, and development of habitat replacement plans for the Salinity Control Program projects throughout the Upper Colorado River Basin.
- Review habitat tables in collaboration with Reclamation, showing the habitat replacement needs, i.e., values and/or acres, for each of the Basinwide and Basin States Program projects and habitat replacement that has occurred in the areas of the salinity projects.

This Contract ends this fiscal year, and we will be working to have a new one in place for FY25.

Barnett Contract:

- Communicate and Coordinate with all participants in the Forum/AC/Work Group/TAG/Science Team and various subcommittees.
- Review and analyze reports, and various information providing commentary and or comments.
- Coordinate Field Trips
- Distribute reports, meeting minutes, and technical data for review and/or approval.

Appendix H

Basin States Program

Colorado River Basin Salinity Control Advisory Council
Meeting June 5, 2024
Durango, Colorado

Basin States Program

Contract Number	Contract Name	Tons of Salt Controlled	End Date	Contract Amount	Obligated to Date	Balance To Obligate	Expended to Date	Balance to Expend
R21AP10326	State of Colorado		9/30/2026	$ 699,926	$ 535,934	$ 163,992	$283,846	$252,088
R21AP10324	State of Utah		9/30/2026	$ 782,526	$ 638,003	$ 144,523	$275,805	$362,198
R21AP10327	State of Wyoming		9/30/2026	$ 375,000	$ 75,000	$ 300,000	$18,340	$56,660
R20PG00010	US F&WS		9/30/2024	$ 473,762	$ 375,342	$ 98,420	$186,325	$189,017
R4022P0013	Barnett Intermountain - Salinity Consultant		1/9/2027	$ 674,972	$ 393,524	$ 281,448	$292,526	$100,998

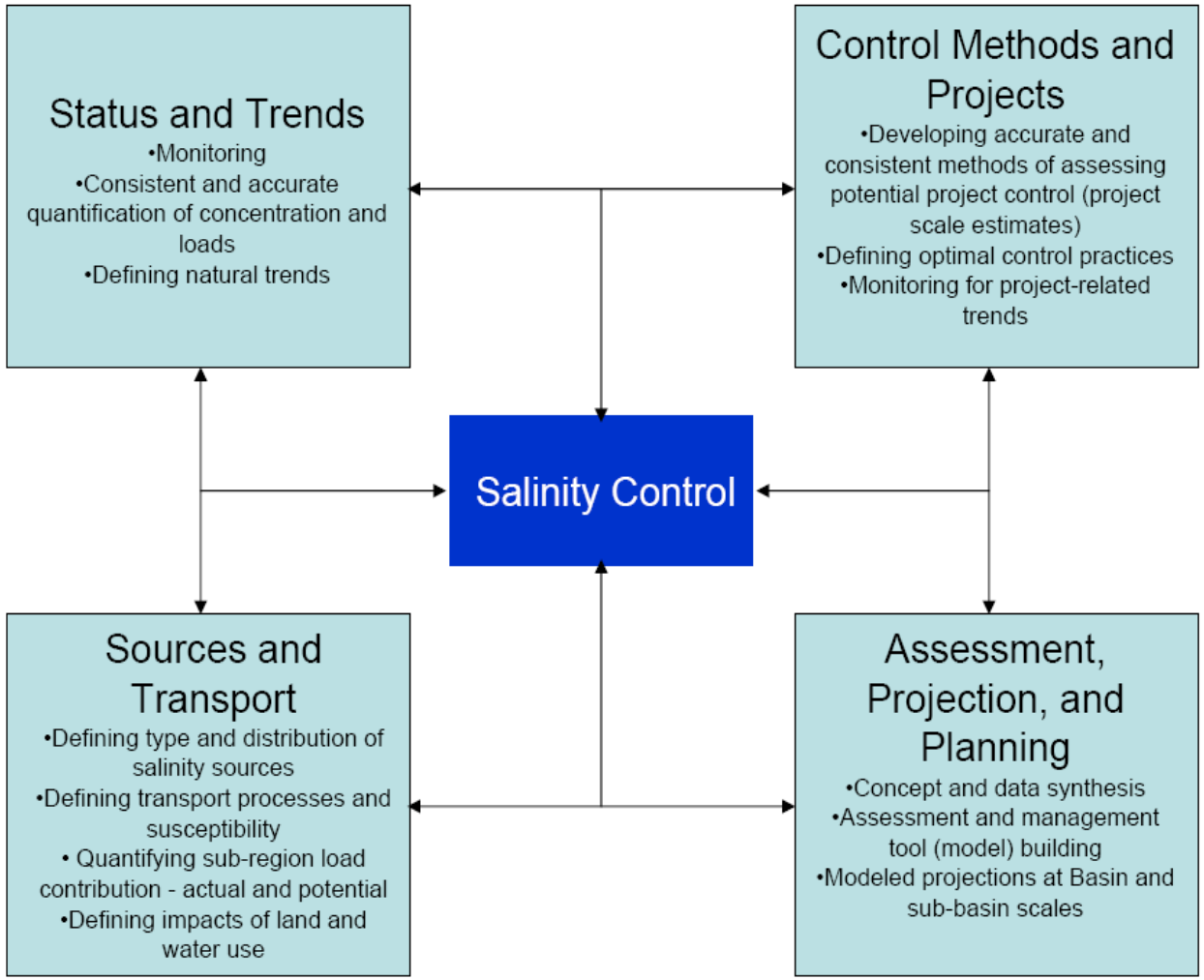
Basin States Program Awarded NOFO

Contract Number	Contract Name	Tons of Salt Controlled	End Date	Contract Amount	Obligated to Date	Balance To Obligate	Expended to Date	Balance to Expend
R20AC00013	Interstate Irrigation, WY	2,295	**12/31/2024**	$ 4,690,479	$ 4,690,479	$ -	$331,000	$4,359,479
R20AC00017	Short Ditch, CO	419	**6/6/2025**	$ 694,605	$ 694,605	$ -	$629,695	$64,910
R20AC00015	Pilot Rock Ditch Co, CO	665	**9/30/2024**	$ 1,109,907	$ 1,109,907	$ -	$1,093,073	$16,834
R24AC00132	UIIP	2087	**5/31/2026**	$ 3,458,900	$ 3,458,900	$ -	$ -	$ -

Basin States Program

Study, Investigation or Research (SIR's)

SIR awards are based on the Science team recommendations. All recommendations take in account the activities listed in the four categories that overlap and interact on purpose to aid in achieving Salinity Program goals.



Basin States Program SIR Awards

Contract Number	Contract Name	Tons of Salt Controlled	End Date	Contract Amount	Obligated to Date	Balance To Obligate	Expended to Date	Balance to Expend
R23PG00034	SIR 2022-01 USGS - Reassessment of hydrologic conditions and salinity loading associated with agricultural areas around Green River, Utah		**9/30/2025**	$ 94,700	$ 94,700	$ -	$61,206	$33,494
BOR Drill Crew - David F. Nielson	SIR 2022-02 USGS - Refined assessment of salinity loading to the Colorado River in Spanish Valley, Utah		-	$ 67,500	$ -	$ 67,500	$ -	$0
R23PG00130	SIR 2023-01 Interactive Colorado River Salinity Map		**9/30/2028**	$ 35,000	$ 35,000	$ -	$21,475	$13,525
R22PG00064	Virgin River at Littlefield Water Parameters Quality Work (LC Shana Tighi - Via Conner/Robert)		**9/30/2027**	$ 35,258	$ 35,258	$ -	$6,956	$28,302
SIR 2024-01	Characterizing Dynamic Salinity Loading and Control Efficacy		-	$ 240,000	$ -	$ -	$ -	$0
SIR 2024-02	Phased Approach to Quantify Groundwater Recharge, Circulation and Mass Loading in the Paradox Valley		-	$ 365,000	$ -	$ -	$ -	$0
SIR 2024-03	Measuring Diffuse Groundwater Seepage and Mass Loading to the Colorado River in Castle and Spanish Valleys		-	$ 104,000	$ -	$ -	$ -	$0

Basin States Status of Funds

		FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Costs	ALL COSTS	$1,474,184	$ 5,754,421	$ 1,038,557	$ 687,205	$ 381,000	$ 381,000
Funding	Upper Basin Cost Share Based on NRCS 3 yr plan	*$ 1,057,843*	$ 822,548	$ 870,077	$ 720,000	$ 720,000	$ 600,000
Funding	Lower Basin Cost Share based on NRCS + Accrual	*$ 4,200,095*	$ 3,546,673	$ 3,616,635	$ 3,841,460	$ 4,093,687	$ 2,758,091
Funding	Carryover Basin Funds	$ 2,825,485	$ 6,671,124	$ 5,285,923	$ 8,734,078	$ 12,608,332	$ 17,041,019
Funding	Program Year End True-Up (total of all back to account)	$ -	$ -	$ -	$ -	$ -	$ -
Funding	From Recovery (big deobligations)	$ 61,885	$ -	$ -	$ -	$ -	$ -
Funding	From UC Accrual		$ -	$ -	$ -	$ -	$ -
	ALL FUNDING TOTAL	$ 8,145,308	$ 11,040,345	$ 9,772,635	$ 13,295,538	$ 17,422,019	$ 20,399,110
	Carry over Funding for Next FY	$ 6,671,124	$ 5,285,923	$ 8,734,078	$ 12,608,332	$ 17,041,019	$ 20,018,110

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BUREAU OF RECLAMATION

Appendix I

SIR Presentation to Advisory Council

Colorado River Basin Salinity Control Advisory Council
Meeting June 5, 2024
Durango, Colorado

Studies, Investigations, and Research (SIR)

Colorado River Basin Salinity Control Advisory Council

June 5, 2024

Presentation Outline

- 2024 SIR Proposals
- 2024 Technical Advisory Group (TAG) Recommendations
- SIR Funding Policy

2024
SIR Proposals

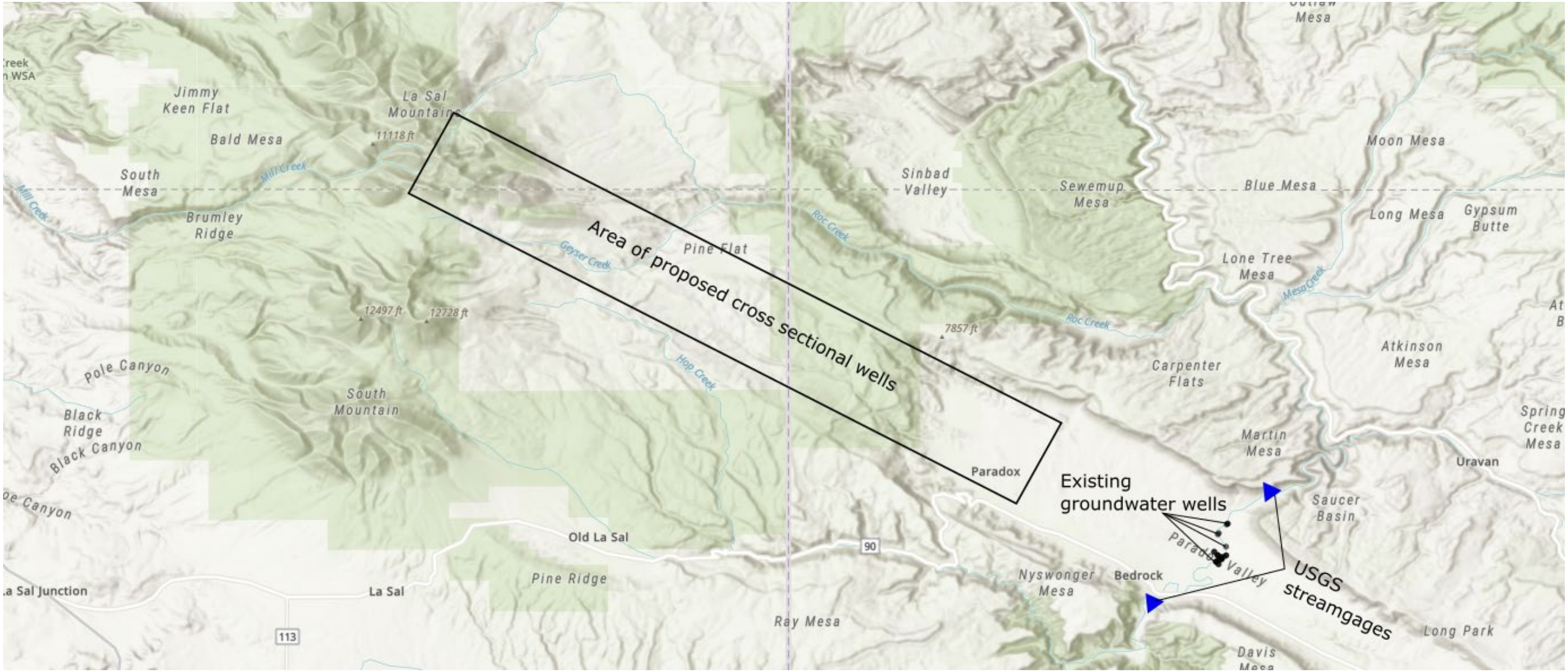
Proposal #1: “Salinity Control Efficacy”

- Evaluate the extent to which the Salinity Control Program has contributed to reduced salt loads from three key salinity areas.
  - Grand Valley, Lower Gunnison, Price/San Rafael
- Distinguish salinity changes due the Program from those due to other causes (e.g., climate, vegetation, erosion).
  - Identify the causes of increased salinity since 2000, despite Program implementation
- Results would inform control activities going forward
- Schedule: Fall 2024 – summer 2027
- Cost: $240,000

Proposal #2: “Paradox Valley Groundwater”

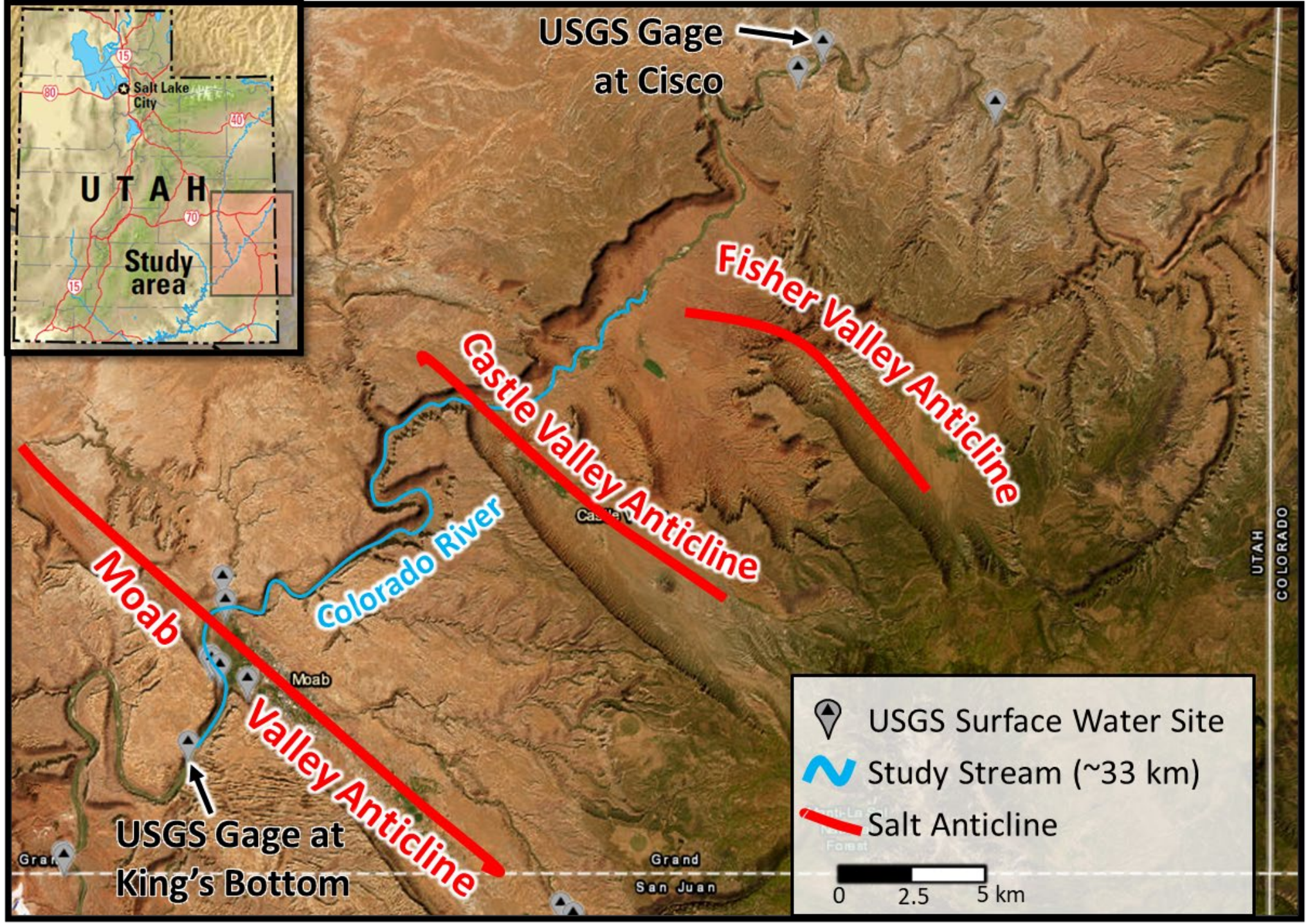
- Brine in the Dolores River results from fresh groundwater passing through and dissolving the Paradox salt formation
- One way to reduce salt loads to the Dolores River could be to intercept some of the fresh groundwater before it reaches the salts
- Study would begin to evaluate whether this strategy could work
  - If successful, it could reduce the required brine capture and disposal at the river, making it easier to find a long-term alternative to the existing well
- Schedule: Fall 2024 – summer 2027
- Cost: $365,000

Paradox Valley Groundwater

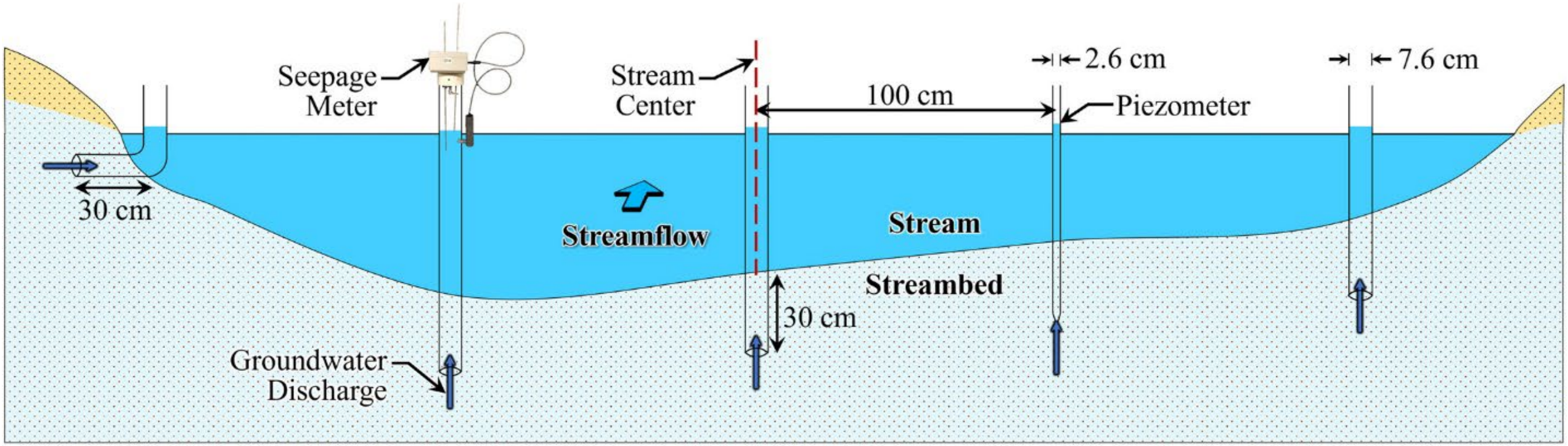


Proposal #3: “Spanish/Castle Valley Salt Loading”

- 2010-11 samples suggest 37,000 to 370,000 tons/year of salt enter the Colorado River between Castle and Spanish (Moab) Valleys.
  - This salt flux is not accounted for in existing CRB Salinity Control accounting.
- Study would determine more precisely the salt loading between these valleys
  - Phase 1: Boat-mounted measurement of flow and brine tracer (helium)
  - Phase 2: Detailed groundwater measurements
- Study could be first step toward a future control project.
- Schedule: Phase 1: Fall 2024 – spring 2026
- Cost: $229,000 (Phase 1: $104,000; Phase 2: $125,000)

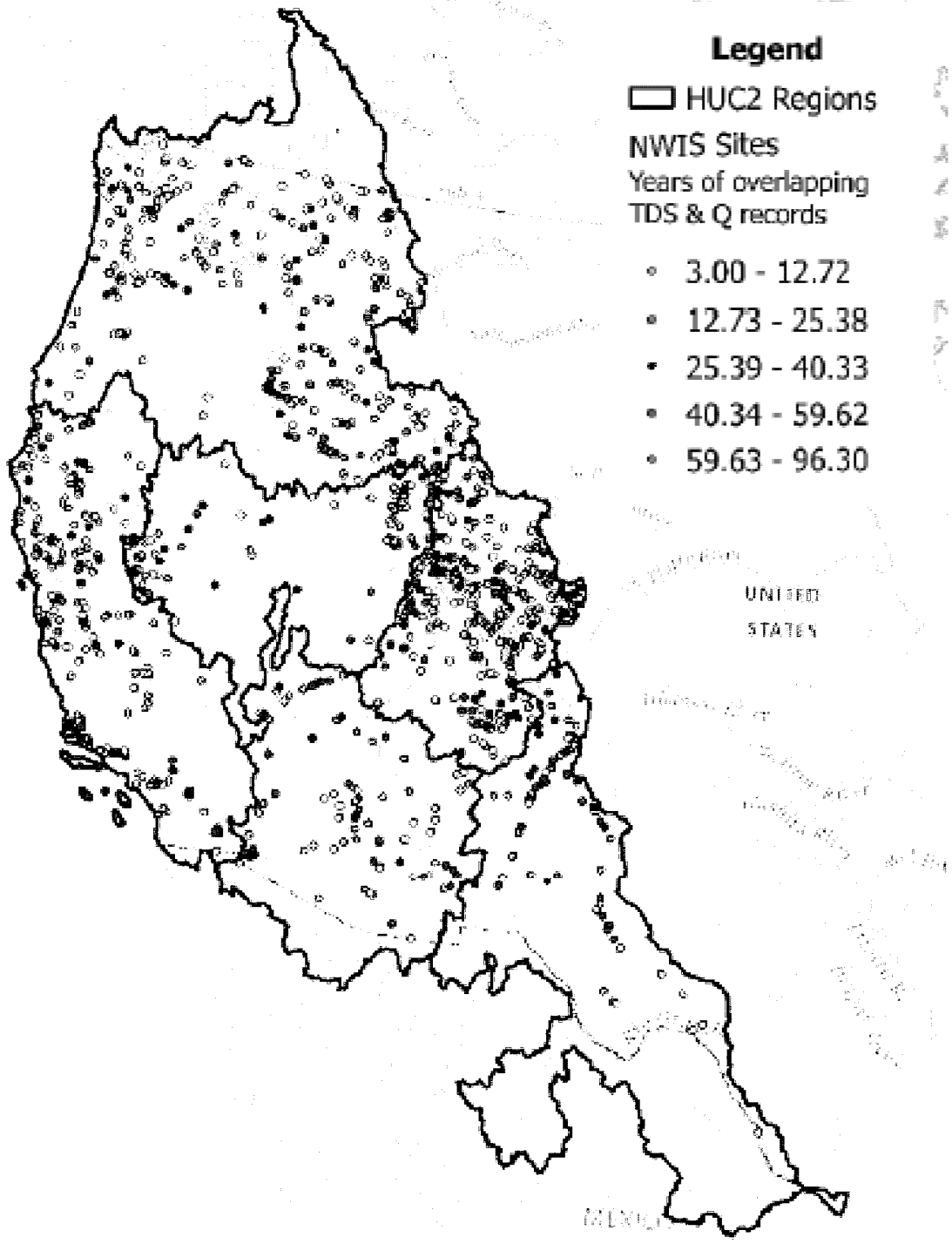

USGS Gage at Cisco
Fisher Valley Anticline
Castle Valley Anticline
Colorado River
Moab
Valley Anticline
USGS Gage at King's Bottom
Salt Lake City
UTAH
Study area
Moab
Grand
San Juan
UTAH
COLORADO
USGS Surface Water Site
Study Stream (~33 km)
Salt Anticline
0
2.5
5 km

Spanish/Castle Valley Salt Loading, Phase 2



Proposal #4: “Reservoir Salinity Parameters”

- Reservoirs have a significant effect on salinity concentrations in rivers.
  - Effect is not represented in CRSS, CRMMS, or SPARROW salinity modeling
- Study would develop statistical relationships between reservoir parameters (e.g., reservoir size, shape, age, climate, geology) and salinity for reservoirs across the western U.S.
  - Could significantly improve salinity modeling in the CR Basin
- Schedule: 2024 – 2025
- SIR Cost: $225,000 (UCOL IWAAs contribution: $50,000)


Legend
HUC2 Regions
NWIS Sites
Years of overlapping
TDS & Q records
3.00 - 12.72
12.73 - 25.38
25.39 - 40.33
40.34 - 59.62
59.63 - 96.30
UNITED
STATES

2024 Technical Advisory Group (TAG) Recommendations

Total SIR funding available: $854,000

SIR Proposal	Cost	Funding Recommendation
1. Salinity Control Efficacy	$240,000	$240,000
2. Paradox Valley Groundwater	$365,000	$365,000
3. Spanish Valley/Castle Valley Salt Loading	$229,000	$104,000 (Phase 1)
4. Reservoir Salinity Parameters	$225,000	$0
Total	**$1,059,000**	**$709,000**

SIR Funding Policy

Current SIR Funding Policy: $300K per year

- Based on past rule of thumb: 40% of cost-share in NRCS Technical Assistance (TA) expenditures
- Using last 10 years of data: ~$450,000 per year
  - $300,000 per year policy based on low year?
- With Salinity Control Fix Act in place: ~$200,000 per year
  - NRCS cost-share reduced from 30% to 15%

Request for Advisory Council Input

- TAG discussion:
  - “Should we spend all $854,000?”
  - “Is $300,000 per year appropriate?”
  - “Is the rule of thumb appropriate?”
  - “$200,000 per year seems too low to fund required science.”
  - “Should more funding go to implementation?”
  - “Should SIR-designated funds carry over, year after year?”
  - “Should SIR funding be some percentage of available cost-share dollars instead of required cost-share dollars?”