Colorado River Basin Salinity Control Program: Monitoring and Evaluation Report, FY 2024

United States Department of Agriculture, Natural Resources Conservation Service

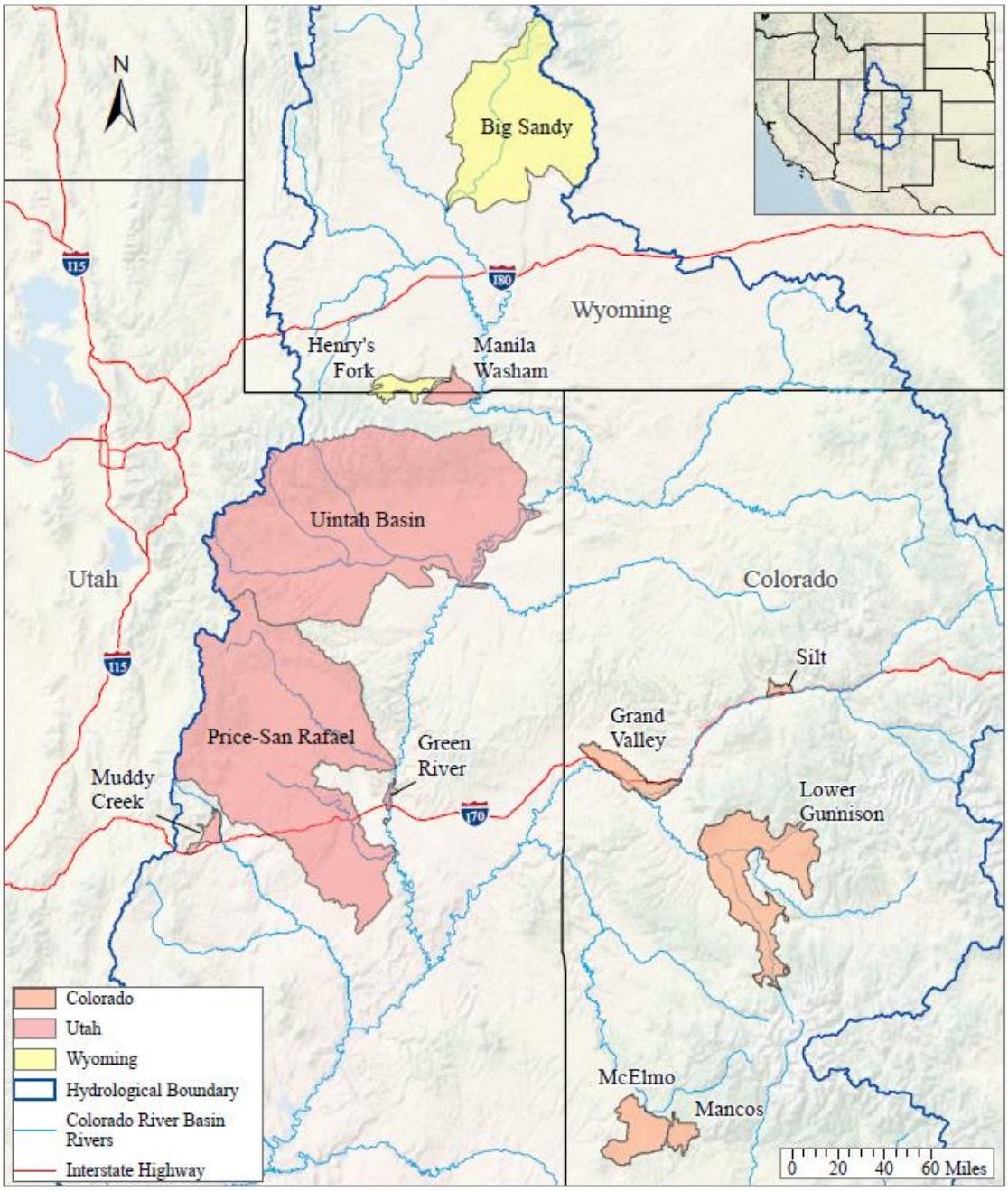

Figure 1: NRCS Upper Colorado River Basin Salinity Control Units Map

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Salinity Control Program Overview

It is estimated that in the 1960's, more than two-thirds of water taken from the Colorado River was used to irrigate agricultural lands. The extensive use of flood irrigation led to excessive deep percolation, dissolving salts from saline soils in the Upper Colorado River Basin. This highly saline groundwater eventually returned to the Colorado River, raising its salinity levels and causing significant harm to agricultural, municipal, and industrial users in the Lower Colorado River Basin and in Mexico.

To address these challenges, Congress enacted the Colorado River Basin Salinity Control Act (SCA) in 1974 (Public Law 93-320). Title I of the Act addresses waters below Imperial Dam and the United States' commitment to Mexico. Title II established the Salinity Control Program (SCP) and authorized federal funding for salinity control units, assigning primary responsibility to the Secretary of the Interior and the Bureau of Reclamation, with the U.S. Department of Agriculture (USDA) supporting the initiative. The SCA named four original salinity control projects (Paradox Valley Unit, Grand Valley Unit, Crystal Geyser Unit, Las Vegas Wash Unit) which directed expedited planning reports for irrigation source control in Uinta Basin (UB), Lower Gunnison, Colorado River Indian Reservation, and Palo Alto Irrigation District.

The SCA has been amended several times since its original enactment. The SCA amendment of 1984 established USDA's on-farm program including the "*voluntary replacement of incidental fish and wildlife values foregone*", resulting from irrigation improvements within project units. Since 1996, the Natural Resources Conservation Service (NRCS), formerly USDA Soil Conservation Service (SCS), has implemented the Colorado River Basin SCP through the Environmental Quality Incentive Program (EQIP). More recent legislation, such as the Agriculture Improvement Act of 2018 (2018 Farm Bill), authorized the NRCS to collaborate directly with Water Management Entities (WME) through the EQIP. This enabled funding for off-farm and near-farm conveyance projects that were previously challenging to finance. Through the SCA, NRCS facilitates 12 Salinity Control Units in Colorado (5), Utah (5), and Wyoming (2).

Building on these efforts, the Colorado River Salinity Control Forum (CRSCF) has supported many special projects within the designated salinity units through Basin States funding. In 2010, the CRSCF advised NRCS to include Basin State Funding for small irrigation improvement projects outside established units, labeled Out-of-Project Units-Tier 2 projects, funded based on their predicted salinity control savings in tons of salt reduction per year.

Project Achievement Summary

Through the end of Fiscal Year (FY) 2024, NRCS has treated approximately 371,882 acres, which represents 86% of its overall goal across all 12 salinity control units in Colorado, Utah, and Wyoming. NRCS currently manages ten open project areas, having treated 315,468 acres toward a target of 373,026 acres, representing 85% of that specific goal. Notably, the Grand Valley Unit in Colorado and the Big Sandy River Unit in Wyoming are no longer active and are now considered complete. These figures do not include Tier II and other on-farm projects that are not associated with the SCP and have been funded through different EQIP fund pools or other programs. Having outlined the overall progress of NRCS's Salinity Program, the following sections of this report will discuss each salinity unit in detail.

NRCS Colorado

NRCS has treated 101,910 acres for salinity control in Colorado, with a goal of 144,750 acres (70% of the target) across its four active project areas. The fifth unit, Grand Valley (shown in the figures below), has successfully reached its treatment goal and has been designated as complete. The remaining units have each exceeded 60 percent of their acreage treatment goals, with three of the four basins achieving over 65 percent of their targets for tons of salt removed. (See Figure 2: Colorado - Acres Treated & Figure 3: Colorado - Salt Removal).

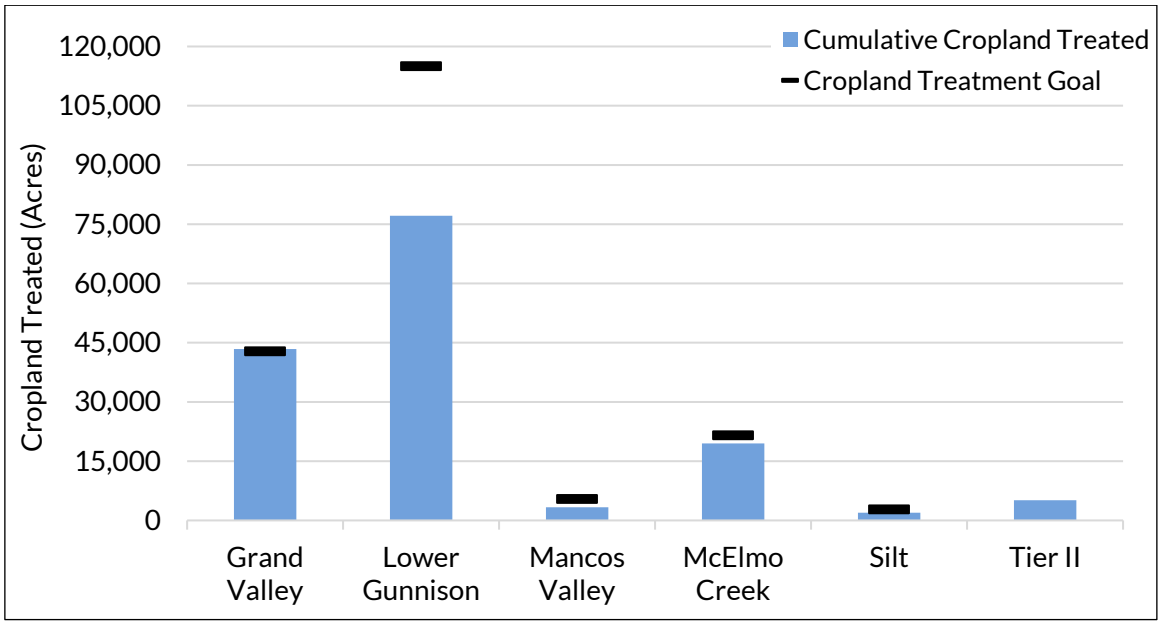

Figure 2: Colorado - Acres Treated Through FY 2024

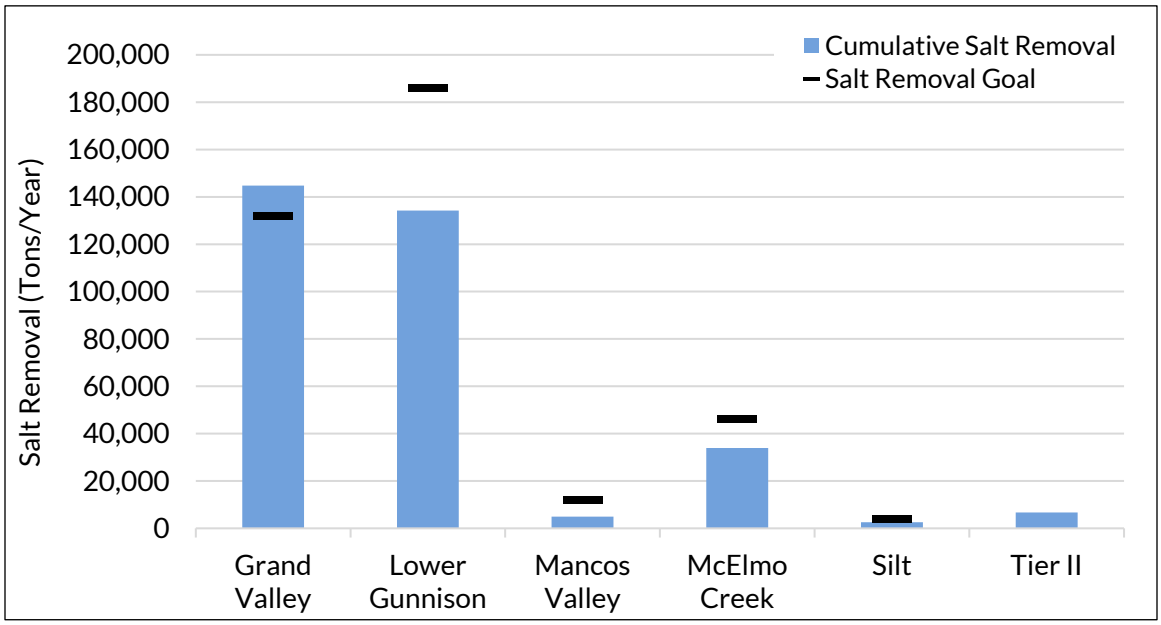

Figure 3: Colorado - Salt Removal Through FY 2024 (On-Farm and Off/Near-Farm combined)

NRCS Utah

NRCS has treated 213,258 acres for salinity control in Utah, with a goal of 214,480 acres (99% of the target) across its five project areas. NRCS Utah has exceeded initial goals for acres treated in the Price-San Rafael and Uinta Basin units and has surpassed its target for tons of salt removed in the Uinta Basin Unit. (See Figure 4: Utah - Acres Treated and Figure 5: Utah - Salt Removal.)

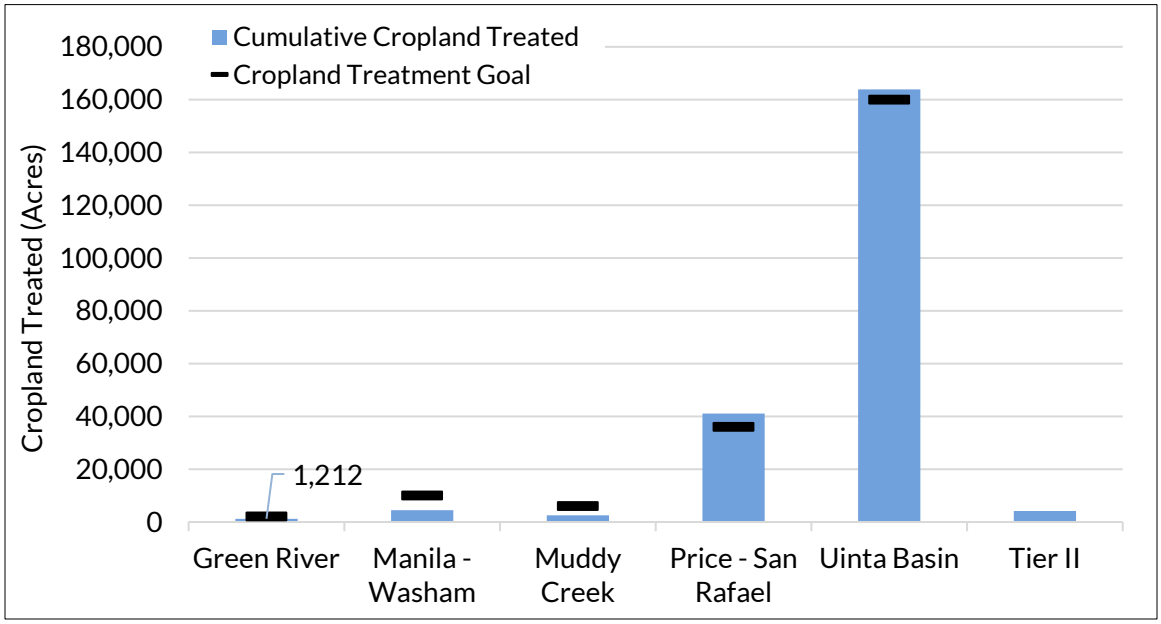

Figure 4: Utah - Acres Treated Through FY 2024

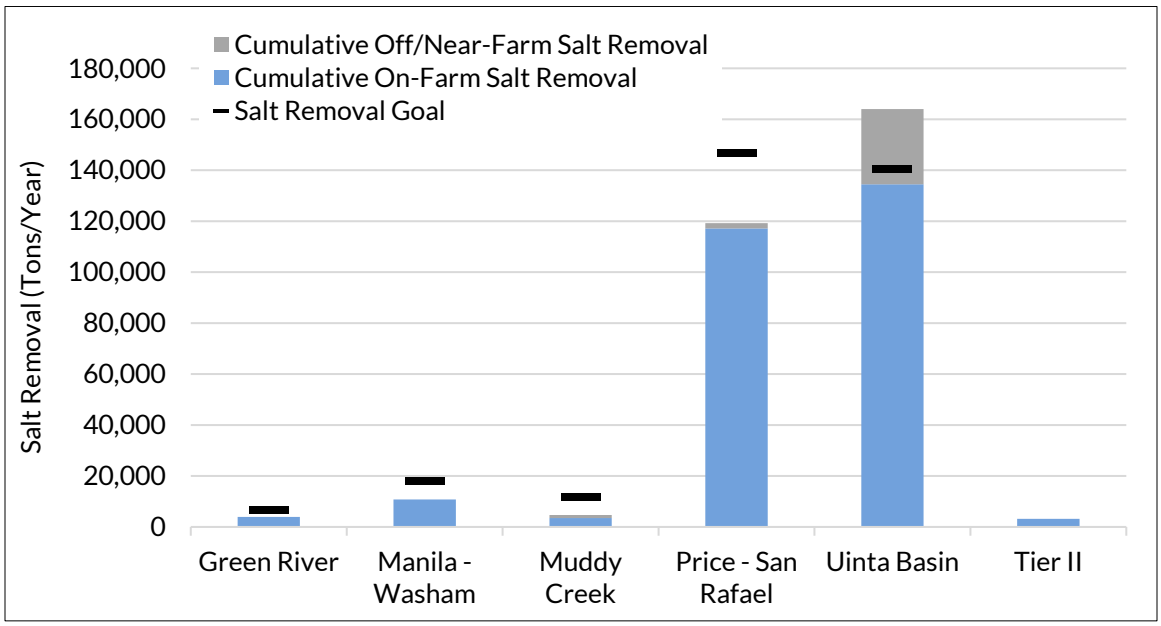

Figure 5: Utah - Salt Removal Through FY 2024 (On-Farm and Off/Near-Farm)

NRCS Wyoming

NRCS has treated 13,323 acres for salinity control in Wyoming, with a goal of 29,796 acres (45% of the target) across its two project areas. The Big Sandy River Unit has exceeded its goal for tons of salt removed (111%) and, as of 2020, is no longer receiving applications for salinity control. The Henry's Fork Unit has low figures for both acreage treated, and tons of salt removed, likely due to the limited number of applications received and contracts awarded. From 2019 to 2024, the unit awarded 12 contracts for salinity control, of which 2 were canceled, resulting in an average of 2 contracts awarded per year. (See Figure 6: Wyoming - Acres Treated and Figure 7: Wyoming - Salt Removal.)

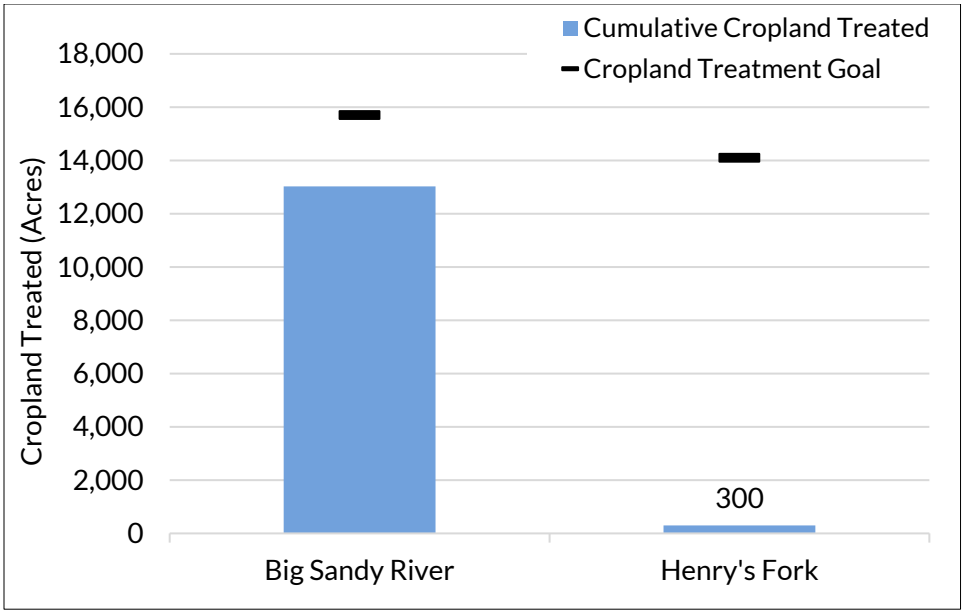

Figure 6: Wyoming - Acres Treated Through FY 2024

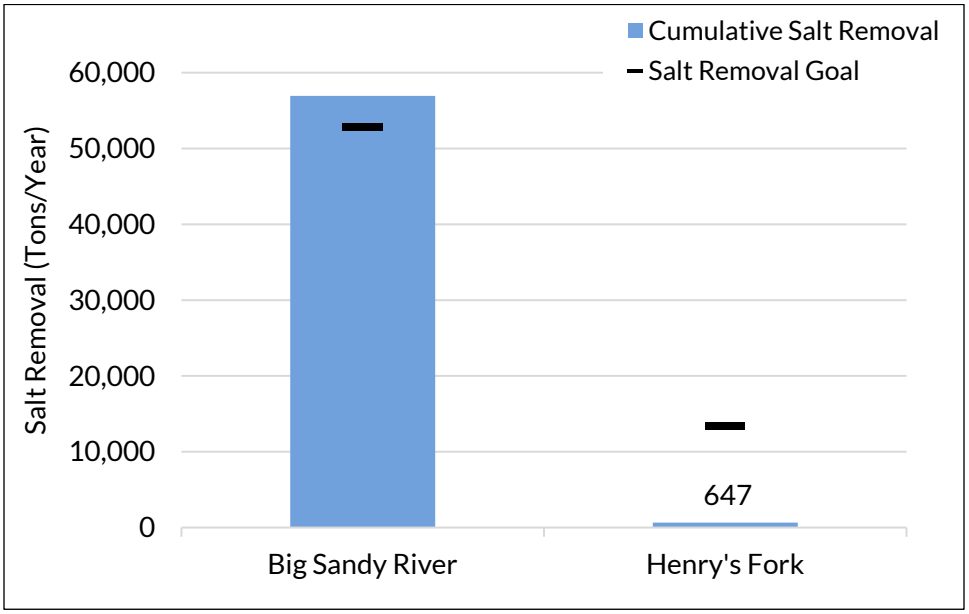

Figure 7: Wyoming - Salt Removal Through FY 2024 (On-Farm and Off/Near-Farm combined)

Applications and Contracts

In FY 2024, NRCS Colorado, Utah, and Wyoming received 316 new applications for the salinity control program and obligated 119 contracts. Please refer to Table 1: Salinity Applications and Contracting, FY 2024 for totals by active unit (excluding the Grand Valley and Big Sandy River Units).

Table 1: Salinity Applications and Contracting, FY 2024

Project Unit	New Applications**	Contracts Obligated***	Contract Costs	Acres
Lower Gunnison	35	22	$ 2,853,272	1,040
Wildlife	1	1	$ 39,804	40
WME	2	1	$430,374	-
Mancos Valley	2	2	$ 95,959	8
McElmo Creek	23	18	$ 1,270,094	740
Silt	1	1	$ 22,140	4
CO Tier II*	34	6	$ 494,741	244
Colorado Total	98	51	$ 5,206,384	2,076
Green River	2	1	$ 148,601	94
Manila - Washam	5	2	$ 141,447	75
Muddy Creek	4	1	$ 39,879	41
Price - San Rafael	64	29	$ 1,293,692	847
Wildlife	2	0	$ -	-
WME	1	1	$84,731	-
Uinta Basin	136	33	$ 2,805,966	1,168
Wildlife	2	0	$ -	-
UT Tier II*	0	0	$ -	-
Utah Total	216	67	$ 4,514,316	2,225
Henrys Fork	2	1	$ 127,182	49
Wildlife	0	0	$ -	0
WY Tier II*	0	0	$ -	0
Wyoming Total	2	1	$ 127,182	49
Grand Total	316	119	$ 9,847,882	4,350

* Projects outside of salinity units
** Applications received during the fiscal year
*** Contracts obligated under the EQIP program during the fiscal year

Wildlife Habitat Replacement

The Salinity Control Act amendment of 1984 (PL 98-569) mandates implementation of "measures to replace incidental fish and wildlife values foregone" resulting from irrigation improvements within project units. In 2012, the U.S. Fish and Wildlife Service (USFWS) approved a policy change allowing for the replacement of wildlife habitat, due to salinity control impacts, establishing a target of 2% of the total acres treated to be concurrent and proportional with salinity controls. The NRCS is committed to promoting the restoration of wildlife habitats and will continue to monitor and assess both the extent and quality of these habitats. Cumulative acreage data are provided in Table 2: Salinity Wildlife Habitat Replacement. For information on habitat mitigation in Wyoming, see the Wyoming Salinity Unit Progress Reports section of this report.

Table 2: Salinity Wildlife Habitat Replacement through FY 2024

Project Unit**	Current Status (%)	Habitat Replacement Goal* (Acres)	Cumulative Habitat Applied (Acres)	Habitat Surplus/ Deficit (Acres)	Habitat in Active Contracts (Acres)
Grand Valley	105%	1,206	1,261	55	0
Lower Gunnison	184%	1,543	2,833	1,290	447
Mancos Valley	161%	66	107	41	0
McElmo Creek	74%	390	287	-103	2
Silt	64%	39	25	-14	0
Colorado Total	-	3,244	4,513	1,269	449
Green River	54%	24	13	-11	12
Manila - Washam	38%	90	34	-56	8
Muddy Creek	0%	51	0	-51	0
Price - San Rafael	425%	822	3,497	2,675	1
Uinta Basin	664%	3,278	21,754	18,476	284
Utah Total	-	4,265	25,298	21,033	305
Grand Total	-	7,509	29,811	22,302	754

* Habitat Replacement Goal = 2% of the cumulative acres treated
** Tier 2 Projects are not required to provide offsetting wildlife habitat.

Economic Impacts

The regional economic impacts of the salinity program have been studied and reported in previous salinity reports. These reports indicate that salinity programs provide economic benefits, including increased crop yields, reduced salinity damages, and lower maintenance costs. In many respects, it is assumed that the salinity program will impact the region similarly to how it has in the past.

Colorado Salinity Unit Progress Reports

Grand Valley Unit

Background

Implementation in this unit has been underway since 1979, and NRCS considers the salt control measures of the project to be successfully completed as planned. A status report compiled in 2010, based on field visits and observations, indicated that at least 12,000 irrigated acres are no longer in agricultural production. Of the remaining 44,700 acres still in production, 42,435 acres (or 95 percent) have received varying levels of treatment. While this unit is designated as complete, additional implementation continues at a reduced rate.

The Grand Valley Unit has a current habitat replacement goal of 1,206 acres. Currently, 1,261 acres of habitat mitigation has been applied and maintained, with a significant portion located on Colorado State Parks and Wildlife land. Since the on-farm irrigation improvement project is essentially complete, the project area is expected to meet or exceed the total habitat replacement goal when all current active habitat contracts are completed.

Current Year

The Grand Valley Unit is a completed project with no new salinity contracts awarded in FY 2024. See Figure 8 for acres treated per FY for the Grand Valley Unit from 1980 – 2020.

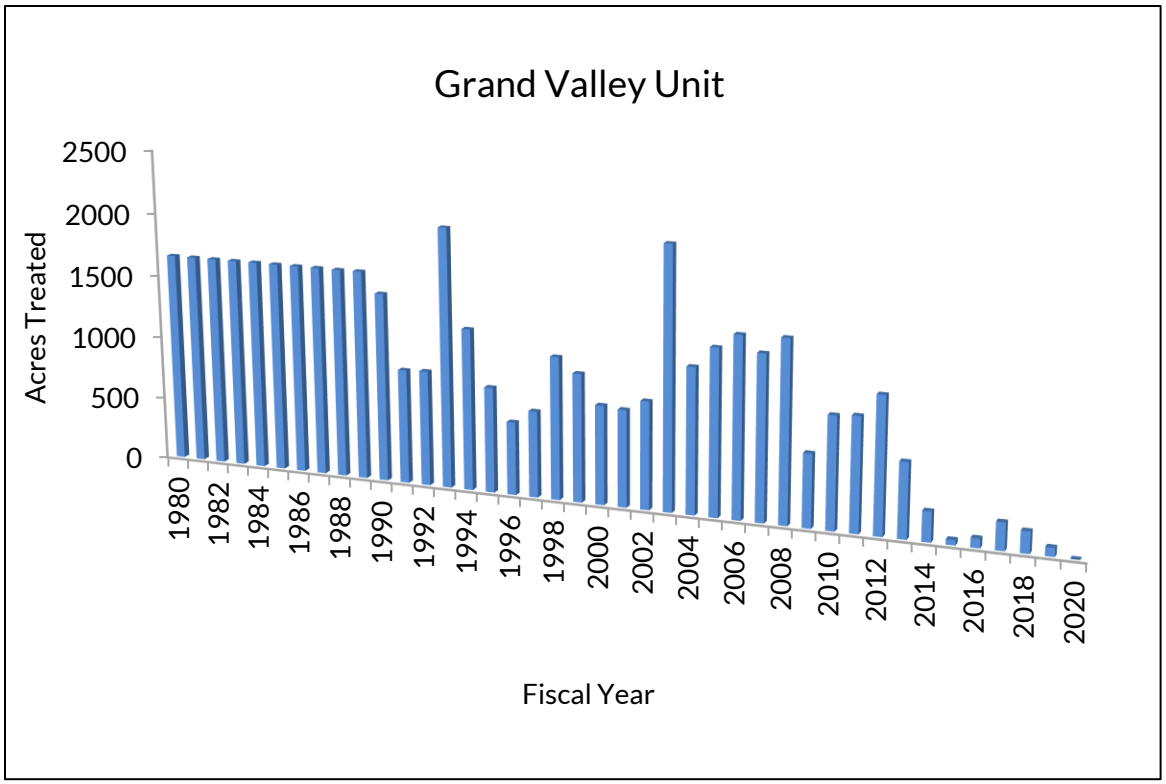

Figure 8: Grand Valley Salinity Treatment (Acres) Through FY 2020

Lower Gunnison Unit

Background

The Lower Gunnison Salinity Control Unit was established by an Environmental Impact Statement (EIS) followed by a Record of Decision (ROD) in 1989. This unit encompasses irrigated farmland in the Gunnison and Uncompahgre River valleys. In 2010, it was expanded to include the upper headwaters of the Uncompahgre River. Implementation continues in Delta, Montrose, and Ouray Counties. The Mancos Formation underlies the central and southern parts of the basin and is the principal source of salt loading.

The original project goal was to treat 135,000 acres of irrigated cropland. However, extensive urban, suburban, and small residential developments in the project area have reduced the eligible treatment areas for NRCS farm-oriented financial assistance programs to the current level of 115,000 acres. Despite this reduction, the reported tons of salt loading are tracking ahead of the acres treated, and it is still anticipated that the original goal of a 186,000-ton per year salinity reduction will be achieved.

The wildlife habitat replacement acres in the Lower Gunnison Unit have exceeded the concurrent requirements for irrigated acres treated to date. This trend is expected to continue, as there are sufficient additional acres under active contracts to support ongoing habitat restoration.

Current Year

In FY 2024, NRCS obligated 22 contracts within the Lower Gunnison Unit covering 1,040 acres and reducing 1,288 tons of salt annually at an anticipated cost of $206 per ton. Cumulatively through FY 2024, NRCS has treated 77,138 acres (67% of the project goal), controlling 134,216 tons of salt annually at a cost of $30/ton (amortized 2024 dollars). Approximately 37,900 acres (33% of the project goal) remains to be treated. See Figure 9 for acres treated per FY for the Lower Gunnison Unit.

In FY 2024, 130 acres of wildlife habitat replacements were implemented in the Lower Gunnison Unit. Cumulatively through FY 2024, NRCS has implemented 2,833 acres of wildlife habitat replacement, exceeding the required goal of 1,543 acres (184% of the goal).

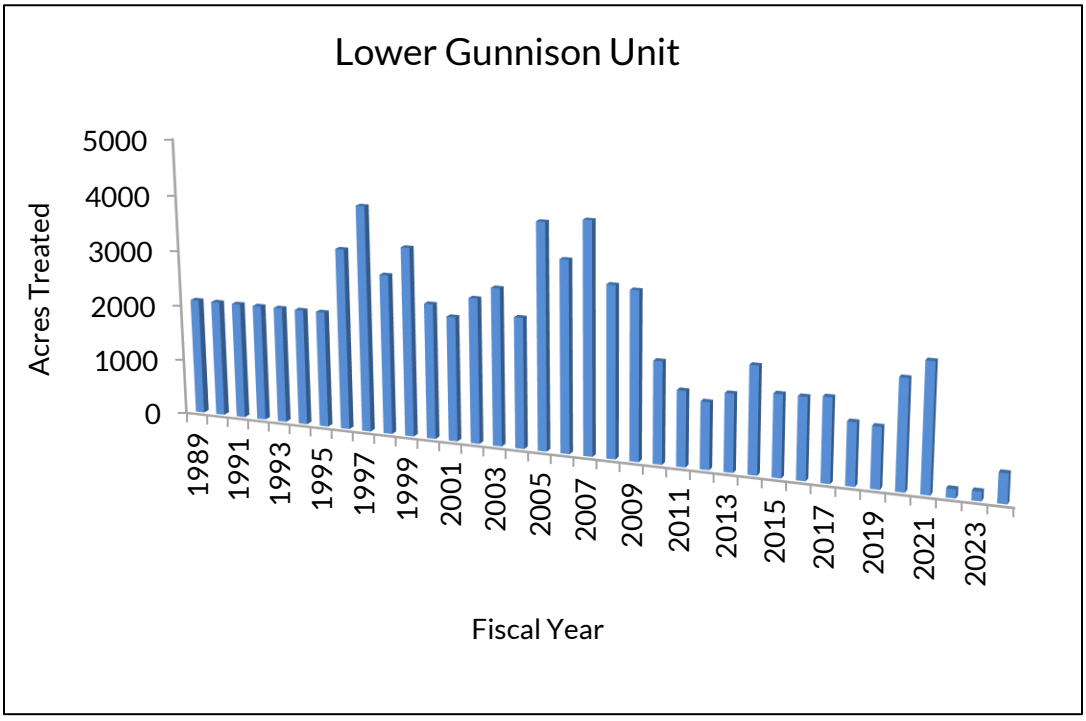

Figure 9: Lower Gunnison Unit Salinity Treatment (Acres) Through FY 2024

McElmo Creek Unit

Background

Established in 1989, the McElmo Creek Unit is in the southwest corner of Colorado and encompasses 29,100 acres of irrigated land, of which 21,550 acres can be treated for salinity control. Water diverted for irrigation of cropland and pasture deep percolates through saline soil formations, dissolving and transporting salts to the river system. These salts originate from dissolved solids in Cretaceous marine deposits, with Mancos shale— a marine formation with a very high salt content— underlining much of the valley. This salinity unit lies within the McElmo Creek watershed, which drains into the San Juan River.

The McElmo Creek Unit is currently facing challenges in concurrent habitat replacement due to a field analysis assessing the status of habitat projects. This review revealed a decrease in the number of acres confirmed as applied and maintained compared to previous reports. Some smaller projects were not maintained, and earlier projects could not be verified through administrative records for compliance with replacement habitat standards. The reported acreage now reflects only those wildlife habitat replacement projects that are actively maintained and can be tracked. Further analysis may reveal that additional previously reported acres are still being upheld as suitable salinity habitat replacement projects.

Current Year

During FY 2024, NRCS treated 101 acres controlling 137 tons of salt annually at a cost of $183 per ton. Cumulatively, through FY 2024, NRCS has treated 19,500 acres (90% of the project goal), controlling 33,958 tons of salt annually at a cost of $23/ton (amortized 2024 dollars). Approximately 2,050 acres (10% of the project goal) remains to be treated. See Figure 10 for acres treated per FY for the McElmo Creek Unit.

In FY 2024, NRCS did not implement any wildlife habitat replacement acres within the McElmo Creek Unit. Cumulatively through FY 2024, NRCS has implemented 287 acres (74%) of the goal required to be concurrent and proportional.

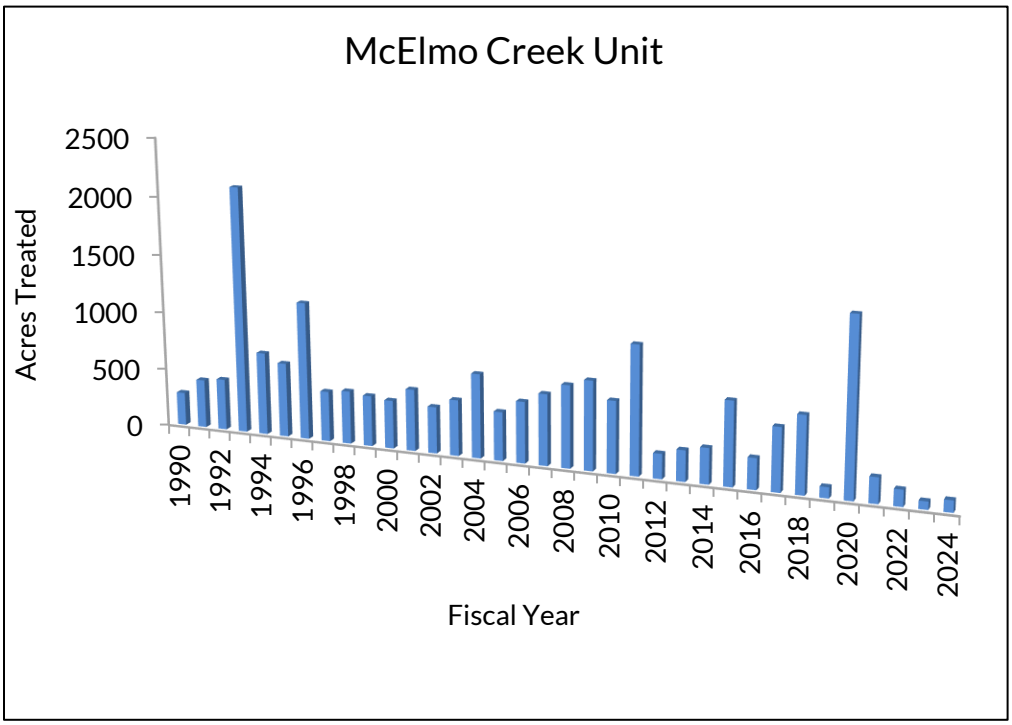

Figure 10: McElmo Creek Unit Salinity Treatment (Acres) Through FY 2024

Mancos Valley Unit

Background

The Mancos Valley Unit, located in the southwest corner of Colorado, was initiated and approved for funding and implementation by NRCS in 2004. Approximately 5,400 acres can be irrigated in the Mancos Valley with a salt reduction goal of 11,940 tons. Water diverted for irrigation of cropland and pasture deep percolates through saline soil formations, dissolving and transporting salts to the Colorado River system. These salts originate from dissolved solids in Cretaceous marine deposits, with Mancos shale— a marine formation with a very high salt content— underlining much of the valley. The reduction of salt loads is achieved by improving irrigation efficiency and minimizing deep percolation.

The project significantly exceeds its concurrent habitat replacement goals and is anticipated to have sufficient salinity replacement habitat projects in place to meet full project implementation objectives if all acres are eventually treated. Moreover, the proximity of this project to the McElmo Creek Unit could provide mutual benefits for the replacement of habitat values in both areas if needed in the future.

Current Year

In FY 2024, NRCS treated 70 acres, controlling 9 tons of salt annually at a cost of $506 per ton. Cumulatively through FY 2024, NRCS has treated 3,318 acres (61% of the project goal), controlling 4,939 tons of salt annually at a cost of $42 per ton (amortized to 2024 dollars). Approximately 2,100 acres (39% of the project goal) remain to be treated. See Figure 11 for acres treated per FY for the Mancos Valley Unit.

NRCS did not implement any new wildlife habitat replacement acres within the Mancos Valley Unit in FY 2024. However, cumulatively through FY 2024, NRCS has exceeded its goal, implementing 107 acres out of the required 66 acres (161%) necessary to be concurrent and proportional.

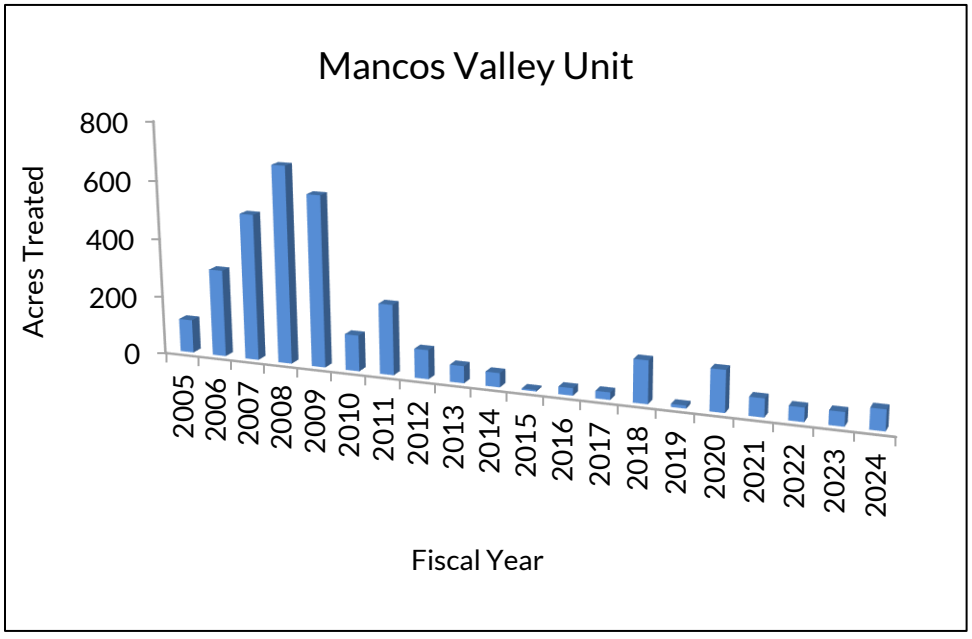

Figure 11: Mancos Valley Unit Salinity Treatment (Acres) Through FY 2024

Silt Unit

Background

The Silt Project, authorized in 2006, is situated in Garfield County along the northern side of the Colorado River, approximately 2 miles east of Silt and Rifle, Colorado. This area encompasses around 2,800 acres that can be irrigated, with a salinity reduction target of 3,990 tons. The valley is primarily underlain by the Wasatch Formation and Mancos shale, both marine formations known for their high salt content, which are the main sources of salt entering the river. Salt loading in the river results from the seepage and deep percolation of irrigation water through these salt-laden soils and shale layers.

The project is on track to achieve its concurrent habitat replacement goal and is expected to have sufficient salinity replacement habitat projects in place to fulfill the overall implementation objectives.

Current Year

In FY 2024, NRCS did not establish any new irrigation acres, resulting in no additional salts removed. Cumulatively, as of FY 2024, NRCS has treated 1,953 acres, which accounts for 70% of the project's goal, successfully controlling 2,609 tons of salt annually at a cost of $73 per ton (in 2024 dollars). Approximately 850 acres remain to be treated, representing 30% of the project goal. See Figure 12 for acres treated per FY for the Silt Unit.

NRCS did not implement any new wildlife habitat replacement acres in the Silt Unit in FY 2024. Cumulatively, through FY 2024, NRCS has replaced 25 acres, achieving 64% of the goal of 39 acres required for concurrent and proportional implementation.

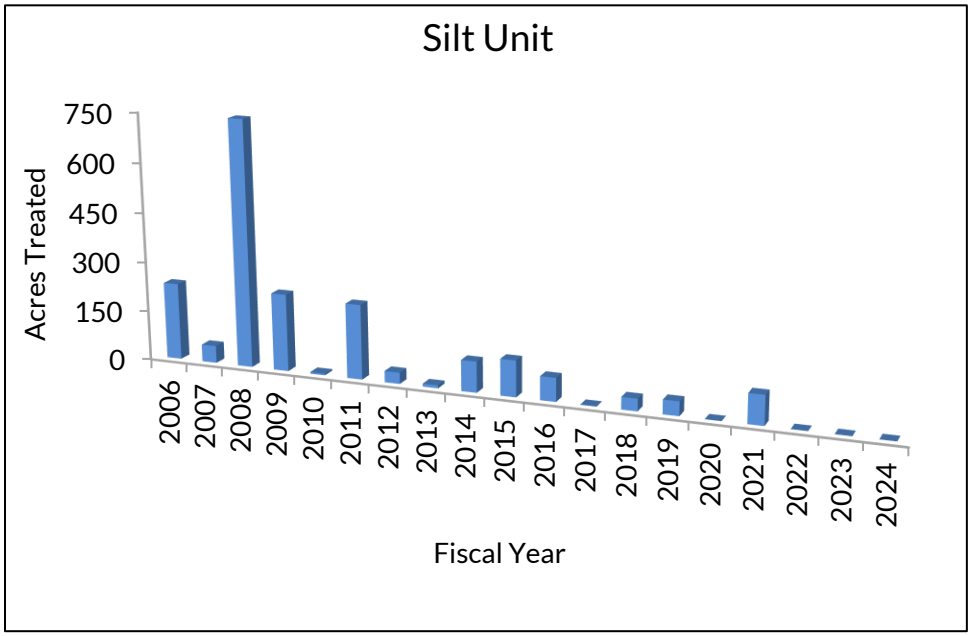

Figure 12: Silt Unit Salinity Treatment Applied (Acres) Through FY 2024

Utah Salinity Unit Progress Reports

Green River Unit

Background

The Green River Salinity Control Unit was established in 2009 through an Environmental Assessment (EA) that resulted in a Finding of No Significant Impact (FONSI). The first NRCS projects were funded in 2010. This unit spans the Green River and the boundary between Emery and Grand Counties, covering 4,000 agricultural acres irrigated with diverted water from the Green River. Of these, approximately 2,080 acres are eligible for irrigation, with a salinity reduction target of 6,540 tons. Excess irrigation water in this area percolates deeply through Cretaceous marine deposits, dissolving and transporting salts into the river system. The reduction of salt loads is achieved by improving irrigation efficiency and minimizing deep percolation.

The project is progressing toward its concurrent habitat replacement goal and is anticipated to have enough salinity replacement habitat projects established to meet overall implementation objectives.

Current Year

In FY 2024, NRCS implemented 188 irrigation acres to control an additional 615 tons of salt at a cost of $70 per ton. Cumulatively, through FY 2024, NRCS has treated 1,212 acres, which represents 58% of the project goal, successfully controlling 3,943 tons of salt annually at a cost of $46 per ton (amortized 2024 dollars). Approximately 850 acres, or 42% of the project goal remains to be treated. Refer to figure 13 for acres treated by fiscal year for the Green River Unit.

In FY 2024, 13 acres of wildlife habitat replacements were implemented in the Green River Unit. Cumulatively, through FY 2024, NRCS has achieved 13 of the 24 acres required for concurrent and proportional implementation, representing 54% of the goal.

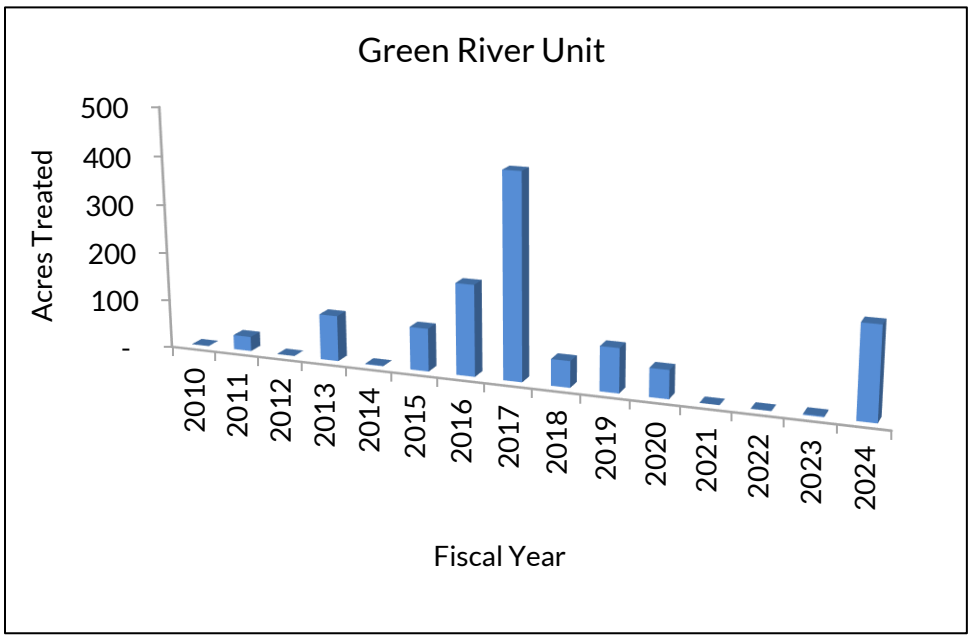

Figure 13: Green River Unit Salinity Treatment Applied (Acres) Through FY 2024

Manila – Washam Unit

Background

Established by a 2006 EA with a FONSI, the Manila-Washam (MW) Salinity Control Unit is located on the north slope of the Uinta Mountains, encompassing 11,100 agricultural acres irrigated with water diverted from tributaries to Flaming Gorge Reservoir in Daggett County, Utah. This area encompasses around 10,000 acres that can be treated, with a salinity reduction target of 18,000 tons. Excess irrigation water deep percolates through Tertiary Lacustrine deposits in the south and Cretaceous marine Mancos Shale deposits in the north, dissolving and transporting salts to the river system. The reduction of salt loads is achieved by improving irrigation efficiency and minimizing deep percolation.

While the Manila-Washam Unit is short of meeting the 2% target for wildlife habitat restoration, the NRCS continues to promote the need for habitat replacement requirements and will continue outreach efforts to meet these goals.

Current Year

In FY 2024, NRCS treated 1 acre, controlling 3 tons of salt annually at a cost of $34/ton. Cumulatively, through FY 2024, NRCS has treated 4,475 acres (45% of the project goal), controlling 10,783 tons of salt annually at a cost of $53 per ton (in 2024 dollars). Approximately 5,500 acres (55% of the project goal) remain to be treated. For details on acres treated by fiscal year, please refer to Figure 14.

In FY 2024, NRCS implemented 18 acres of wildlife habitat replacements within the Manila-Washam Unit. Cumulatively, through FY 2024, NRCS has completed 34 of the 90 acres required for concurrent and proportional implementation, representing 38% of the goal.

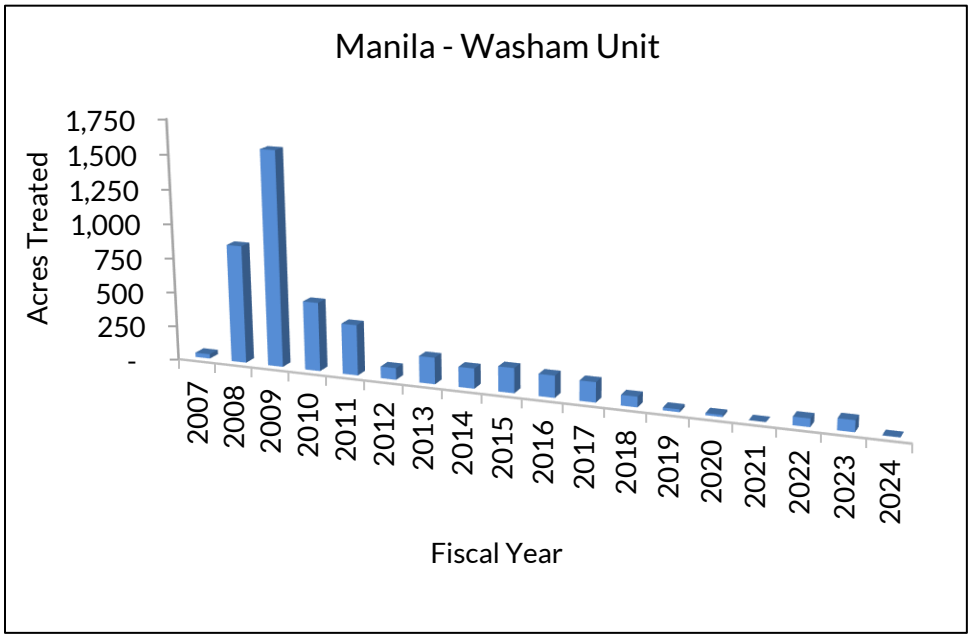

Figure 14: Manila-Washam Unit Salinity Treatment (Acres) Through FY 2024

Muddy Creek Unit

Background

The Muddy Creek Salinity Control Unit was established by a 2004 EA with a FONSI. It is in the southern portion of Emery County, Utah, with the first NRCS projects funded in FY 2010. This unit aims to treat 6,050 agricultural acres irrigated with water diverted from Muddy Creek and its tributaries. The goal of the unit is to control 11,677 tons of salt annually. Excess irrigation water percolates through Cretaceous marine Mancos Shale deposits, carrying salts into the river system. Reducing salt loads is accomplished by enhancing irrigation efficiency and minimizing deep percolation.

Although the Muddy Creek Unit has not yet met the 2% target for wildlife habitat restoration, NRCS remains committed to promoting habitat replacement requirements within these units and will continue outreach efforts to achieve these goals.

Current Year

In FY 2024, NRCS treated 186 acres, resulting in the control of an additional 341 tons of salt annually at a cost of $236 per ton. Cumulatively, through FY 2024, NRCS has treated 2,569 acres, which represents 42% of the project goal, effectively managing 4,717 tons of salt annually at a cost of $115 per ton (amortized 2024 dollars). Approximately 3,481 acres, or 58% of the project goal, remain to be treated. Refer to Figure 15 which shows the acres treated by fiscal year for the Muddy Creek Unit.

In FY 2024, there were no wildlife habitat replacements in the MC Unit. Thus, the total habitat replaced through FY 2024 remains at 0 acres, against a required goal of 51 acres for concurrent and proportional implementation.

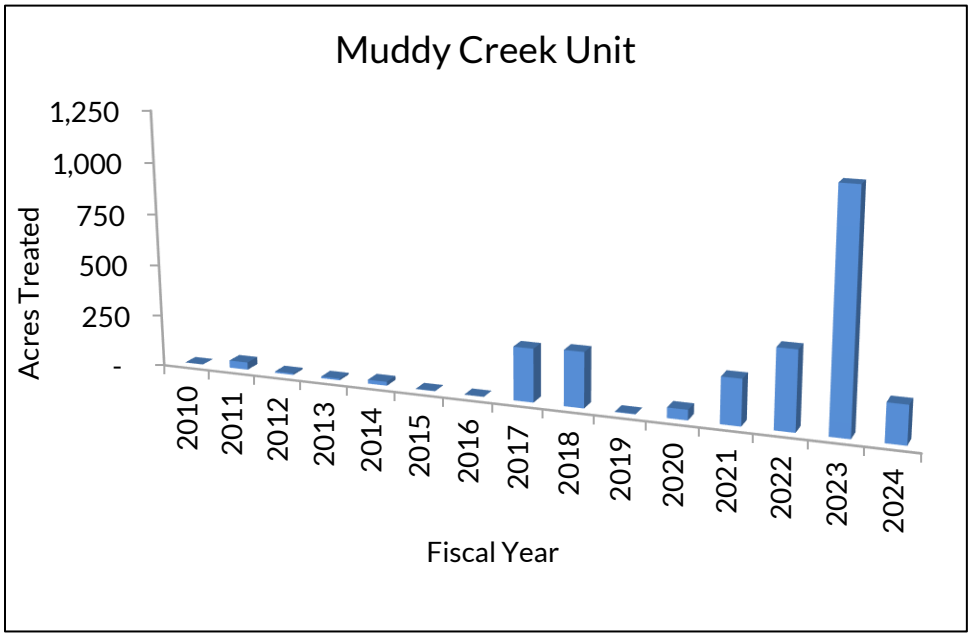

Figure 15: Muddy Creek Unit Salinity Treatment (Acres) Through FY 2024

Price-San Rafael Rivers Unit

Background

Established in 1993 through an Environmental Impact Statement (EIS), the Price-San Rafael Unit, located in east-central Utah, encompasses 66,450 acres of irrigated agricultural land. It aims to treat 36,050 acres irrigated from the tributaries of the Price and San Rafael Rivers in Carbon and Emery Counties, with a goal of controlling 146,900 tons of salt annually. The first NRCS salinity control projects were funded in fiscal year 1996. Excess irrigation water percolates through Cretaceous marine Mancos Shale deposits, transporting salts into the river system. Reducing salt loads is accomplished by enhancing irrigation efficiency and minimizing deep percolation.

The wildlife habitat replacement acres in the Price-San Rafael Unit have exceeded concurrent requirements with the irrigated acres treated. This trend is expected to continue, as there are sufficient additional acres under active contracts to support ongoing habitat restoration.

Current Year

In FY 2024, NRCS treated 461 acres, controlling 916 tons of salt annually at a cost of $108 per ton. Cumulatively, through FY 2024, NRCS has treated 41,110 acres (114% of the goal), managing 119,260 tons of salt annually at a cost of $40 per ton (in 2024 dollars). The Price-San Rafael Unit has exceeded its treatment goal by 5,060 acres, although staff have refocused efforts on the Muddy Creek Unit while continuing to fund initial treatments in the PSR Unit. Refer to Figure 16 which shows the acres treated by fiscal year for the unit.

In FY 2024, five acres of wildlife habitat replacement were implemented, increasing the total to 3,497 acres—exceeding the required goal of 822 acres by 2,675 acres (a 425% increase). NRCS will continue to support wildlife habitat replacements in this unit.

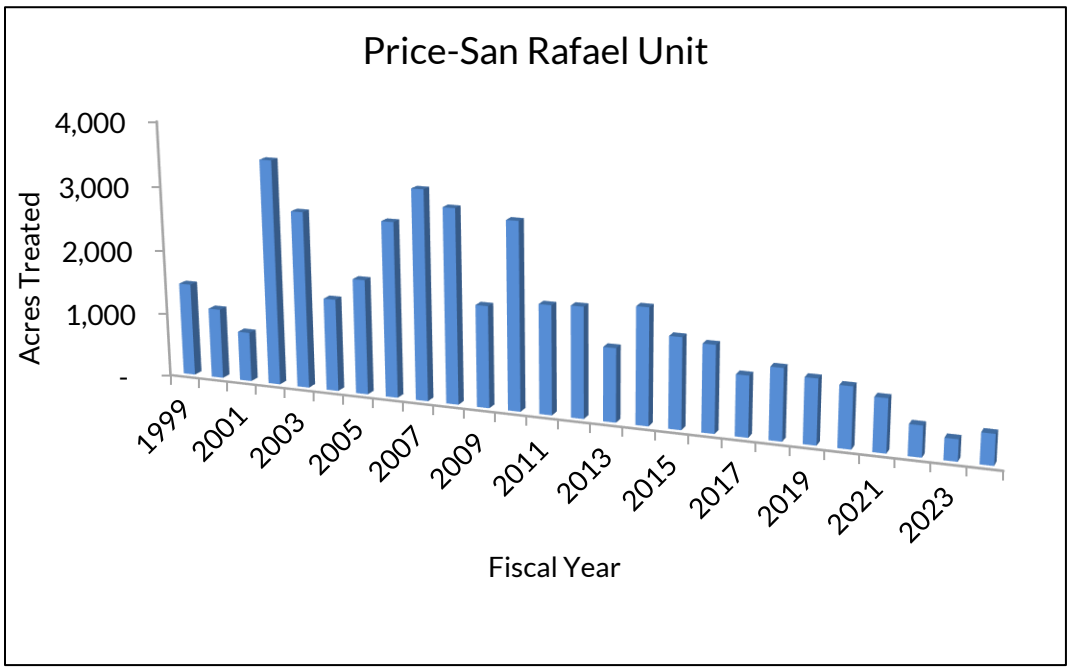

Figure 16: Price - San Rafael Unit Salinity Treatment (Acres) Through FY 2024

Uinta Basin Unit

Background

As one of the four named salinity control projects requiring expedited planning reports for irrigation source control within the 1974 SCA, the Uinta Basin Salinity Control Unit was established by an EIS in 1982 following multiple studies. USDA funding for salinity control projects began in 1980 with existing grant programs. Located in northeastern Utah, the Unit encompasses 225,000 irrigated agricultural acres sourced from tributaries of the Duchesne and Green Rivers. Initially, the treatment goal was to manage 122,200 acres and control 76,600 tons of salt annually. The program's initial success led to a shift in preferred treatment methods from improved flood irrigation to more efficient sprinkler systems. By 1991, the treatment goal was increased to 160,000 acres, equivalent to 70% of the total irrigated acres with a goal of controlling 140,500 tons of salt annually. Salt load reduction is achieved by enhancing irrigation efficiency and minimizing deep percolation.

The wildlife habitat replacement acres in the Uinta Basin Unit have exceeded concurrent requirements in relation to the treated irrigated acres. This positive trend is expected to persist due to additional acres under active contracts, which support ongoing habitat restoration efforts.

Current Year

In FY 2024, NRCS treated 749 acres, controlling 968 tons of salt annually at a cost of $272 per ton. Cumulatively, through FY 2024, NRCS has treated 163,892 acres—102% of the project goal—controlling a total of 164,039 tons of salt annually at a cost of $66 per ton (amortized to 2024 dollars). The Unit has surpassed its acreage goal by 3,892 acres, and NRCS will continue to support salinity control efforts in this area. Refer to Figure 17 which shows the acres treated by FY for the Uinta Basin Unit. In FY 1988, 16,675 acres were treated, while all other years had fewer than 10,000 acres treated.

In FY 2024, 24 acres of wildlife habitat replacements were implemented in the Uinta Basin Unit. The total habitat replacement by FY 2024 stands at 21,754 acres, significantly exceeding the required 3,278 acres (664% increase) for concurrent and proportional habitat replacement. NRCS will continue to support wildlife habitat replacement initiatives in Uinta Basin Unit.

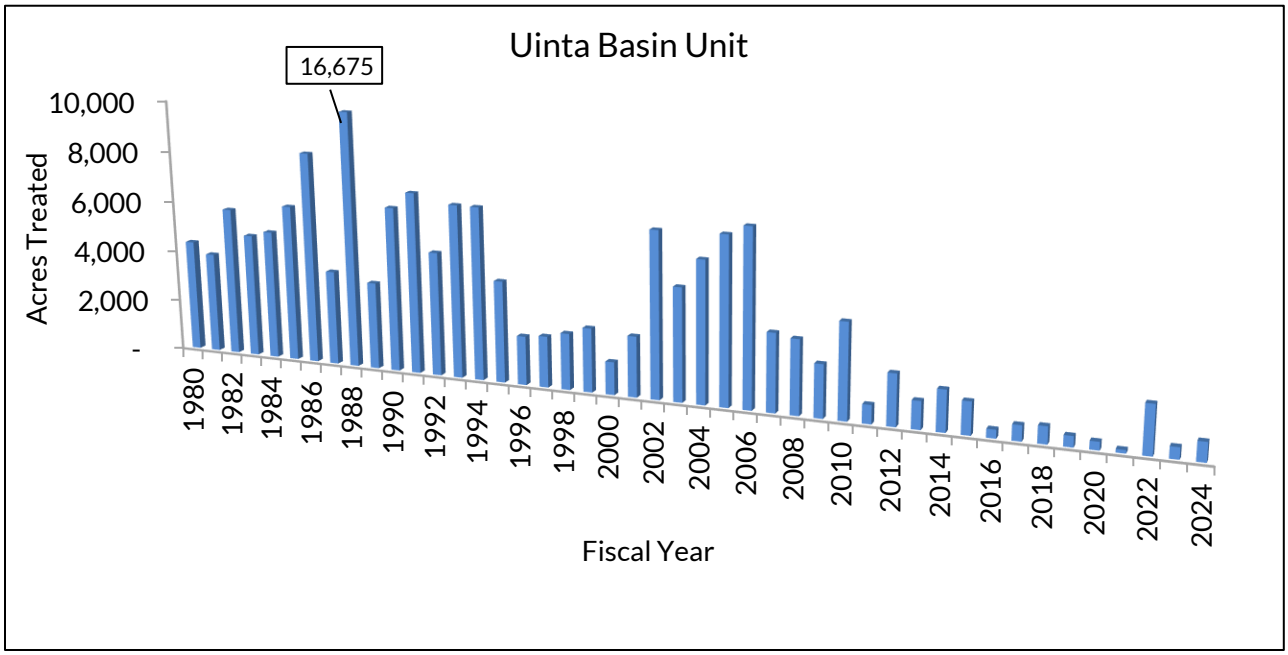

Figure 17: Uinta Basin Unit Salinity Treatment (Acres) Through FY 2024

Wyoming Salinity Unit Progress Reports

Big Sandy River Unit

Background

The Big Sandy River Salinity Unit was established in 1987 with a treatment goal of 15,700 acres for improved irrigation systems and a salt load reduction of 52,900 tons per year. Located in southwestern Wyoming, about 30 miles north of Green River, approximately 13,000 acres (83%) of the planned area have been treated. The salt control goal has been exceeded by about 5,900 tons, totaling 56,934 tons (108%).

Salinity Control Units must implement wildlife habitat improvement projects to offset the habitat values lost due to reduced return and surface flows. For the Big Sandy River Unit, NRCS has found that wildlife habitat has not been negatively impacted as much as projected in the EIS. Additionally, the 2019 Big Sandy River Progress Report indicates that habitat replacement initiatives have compensated for affected wildlife habitat and added 10.77 acres of wetland through voluntary programs. With the transition from flood irrigation to sprinklers nearly complete, no further habitat replacement projects are expected for the Big Sandy River Salinity Project.

Current Year

The Big Sandy River Unit has not received any applications from landowners in this area since 2020. This is primarily due to a lack of interest in the program among producers. Those interested in the Salinity Control Program have already applied and received assistance, leaving the remaining acres controlled by producers who are not interested in participating. For more details, refer to Figure 18, which shows the acres treated per fiscal year from 1988 to 2020 within the Big Sandy River Unit.

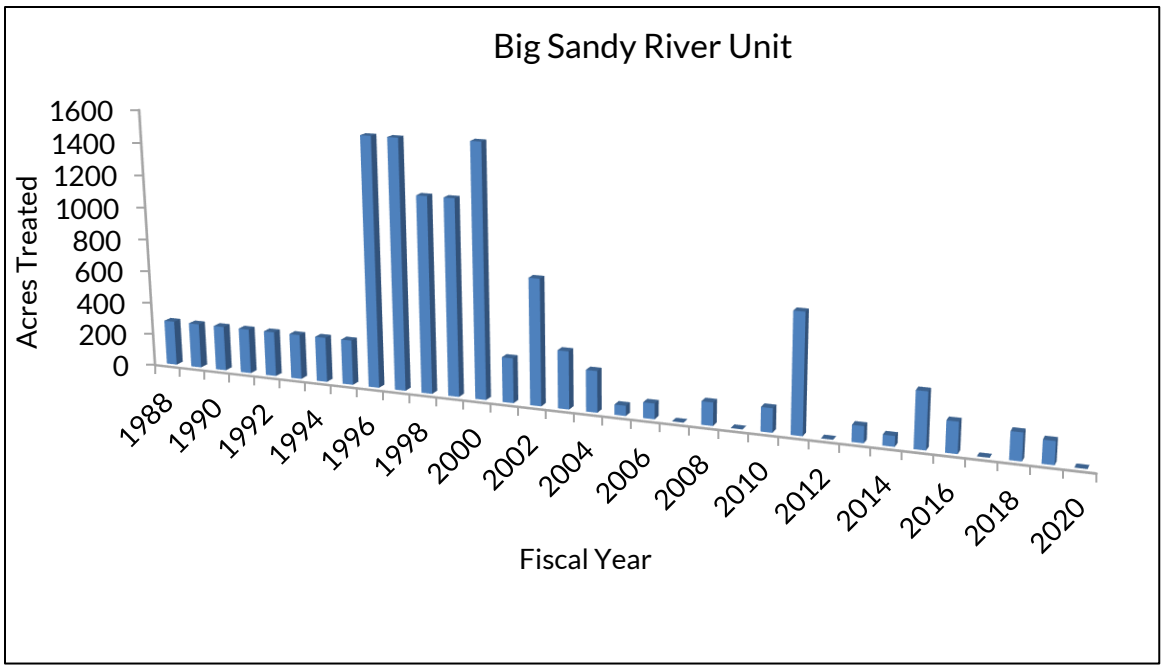

Figure 18: Big Sandy River Unit Salinity Treatment (Acres) Through FY 2020

Henry's Fork Unit

Background

The Henry's Fork Project was established by an EIS followed by a ROD in June of 2013, with NRCS salinity projects beginning in 2016. The project encompasses roughly 20,700 acres and is primarily located in southwestern Wyoming with some land in northeastern Utah. Annually, about 71,000 acre-feet of water is diverted to this area. According to the EIS, the treatment goal of 70% (~14,000 acres) will reduce deep percolation in these lands by 40 percent and save an estimated 6,540 tons of salts per year.

At the start of the project, field investigations estimated that approximately 5,600 of the 20,709 irrigated acres were wetlands. Given the significant wildlife values, annual follow-up wetland assessments are conducted after a conservation practice has been in place for at least one year and when wetland characteristics have changed from pre-practice conditions. Since 2013, 850.9 irrigated acres under conservation practices have been assessed, with 461.7 acres showing 1,606.73 wetland habitat values.

The compensatory value of habitat enhancements is determined by comparing baseline conditions to improved habitat values. The difference in habitat values between them is counted towards compensation. Compensatory value also takes into consideration whether enhancements improve habitat values similar to those foregone. The Montana Wetland Assessment Method is used for site scale monitoring and mitigation calculations.

Current Year

In FY 2024, NRCS did not establish any new irrigation acres, resulting in no additional salts removed. Cumulatively, through FY 2024, NRCS has treated 300 acres—just 2% of the project goal—controlling a total of 647 tons of salt annually. From 2019 to 2024, the Henry's Fork Unit awarded 12 contracts for salinity control, 2 of which were canceled, resulting in an average of 2 contracts per year. Refer to Figure 19 for a breakdown of acres treated by fiscal year for the Henry's Fork Unit. Overall, the project has seen limited progress.

Wyoming continues to conduct annual follow-up wetland assessments for habitat mitigation. Currently, no habitat values have been lost, and a surplus of 255.42 habitat values exist.

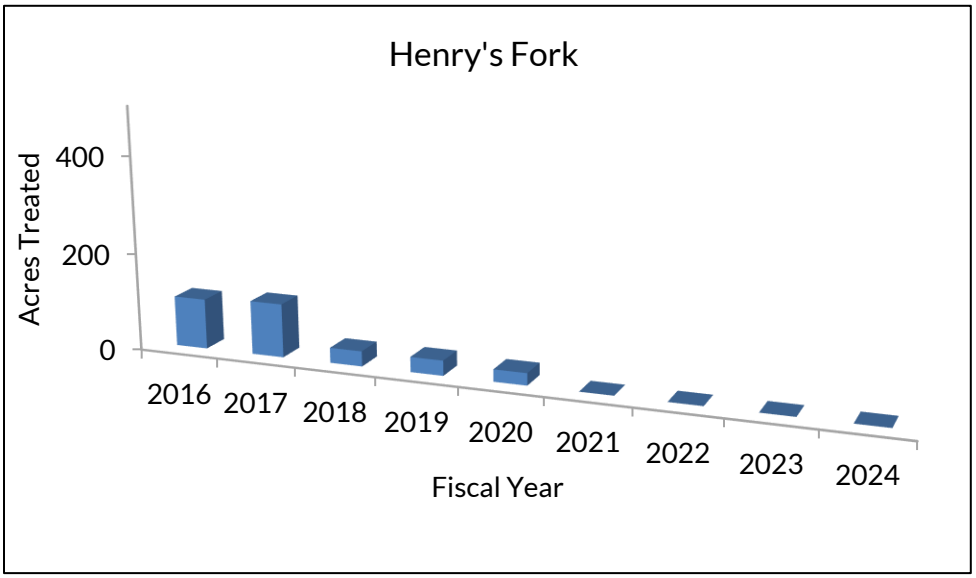

Figure 19: Henry's Fork Unit Salinity Treatment (Acres) Through FY 2024

Contact Information

This report is limited in scope. For additional information on the Colorado River Salinity Control Program visit:

Natural Resources Conservation Service website:
https://www.nrcs.usda.gov/programs-initiatives/eqip-environmental-quality-incentives

Bureau Reclamation website: www.usbr.gov/uc/progact/salinity/

Colorado River Salinity Control Forum website: http://coloradoriversalinity.org/

For additional Monitoring and Evaluation reports search the internet under "USDA Monitoring & Evaluation Reports for Salinity Projects".

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Colorado NRCS offices within the Salinity Area are in the following communities: Glenwood Springs, Grand Junction, Delta, Montrose, and Cortez, CO. Other offices may be involved in the Out of Project Area contracts.

Utah NRCS offices within the Salinity Area are in the following communities: Roosevelt, Vernal, Price, and Castle Dale, UT. Other offices may be involved in the Out of Project Area contracts.

Wyoming NRCS offices within the Salinity Area are in the following communities: Lyman and Rock Springs, WY.

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