

# ANNUAL REPORT

State Fiscal Year 2022



*Sand Harbor, Lake Tahoe's Eastern Shore*

## Nonpoint Source Management Program

Nevada Division of Environmental Protection



## NEVADA'S NONPOINT SOURCE MANAGEMENT PROGRAM

### SUMMARY OF ACCOMPLISHMENTS

This report is written to comply with Subsection 319(h)(11) of the Clean Water Act (CWA), which requires each state to report to the United States Environmental Protection Agency (EPA) on an annual basis regarding (A) its progress in meeting milestones listed in the Nevada Nonpoint Source State Management Plan; and (B) to the extent appropriate information is available, reductions in nonpoint source (NPS) pollution loading and improvements in water quality resulting from implementation of the management program.

The report documents the activities and accomplishments of the Nevada Division of Environmental Protection (NDEP), Nonpoint Source Pollution Management Program (NPS Program) and other state, federal, and local agencies in addressing NPS issues in Nevada. The reporting period for these activities, July 1, 2021 through June 30, 2022, coincides with the State Fiscal Year (SFY) 2022. During this time the NPS Program operated under the Federal Fiscal Years (FFY) 2021 work plan and funding (Grant C9-979081-22)<sup>1</sup>. Activities referenced, including the preparation of this report, were funded through Subsection 319(h) of the CWA via the EPA. All tasks delineated in this annual report support the EPA's FY2018-2022 Strategic Plan Goal 1, Objective 1.2 to provide for a cleaner, healthier environment and to provide for clean and safe water.

<sup>1</sup>Previous grants that remain open may support subgrant agreements, typically with multiyear terms, that were awarded in earlier SFYs. In some cases projects may be supported by multiple grants.

Annual reporting elements noted in the *Nonpoint Source Program and Grants Guidelines for States and Territories* (p. 45) are listed below with their corresponding location in this report:

REPORTING ELEMENTS	LOCATION
Summary of progress with evidence/examples toward meeting approved milestones, short and long-term goals and objectives	Summary Appendix C: Project Updates
Matrix displaying milestones	Appendix A: Quarterly Report Matrices
Discussion of Federal Agencies supporting SMP milestones	Summary
Summary of NPS load reductions	Summary Appendix B: Load Reductions
Summary of environmental improvements	Appendix C: Project Updates

Table 1: EPA Annual Reporting Requirements and Location

## **Nonpoint Source Pollution in Nevada**

The Nevada Nonpoint Source State Management Plan (SMP) establishes how NDEP will work with partners to address NPS pollution from 2020 through 2024. The SMP formalized Nevada's approach for protecting and improving water quality and described the goals, short and long term objectives, milestones and timeframes to guide activities, and measures for tracking success. The SMP incorporates the "Key Components of an Effective State Nonpoint Source Management Program" as identified in the *Nonpoint Source Program and Grants Guidelines for States and Territories* issued by EPA on April 12, 2013. This report discusses activities performed under the Plan from July 1, 2020 through June 30, 2024.

## **State Management Plan Update**

The 2020-2024 Plan was updated and submitted to EPA for review and approval on September 22, 2020. On September 30, 2020, NDEP received EPA approval for the updated 2020-2024 Plan. NDEP immediately began implementation of the approved plan. Tasks towards completion of the next five-year update will begin in State Fiscal Year 2023.

## **Reporting Environmental Progress**

NDEP is committed to reporting environmental improvements that result from nonpoint source projects. It is important for incremental progress to be described and reported adequately to tell the story of Nevada's nonpoint source program. A list of environmental indicators was created by NPS staff to adequately demonstrate improvements. These indicators include comparison of pre- and post-site conditions through data gathering by establishing photo points, tracking feet of riverbank restored, monitoring increase in riparian vegetation, and evaluating trend in Proper Functioning Condition (PFC), among others. For education programs, success is evaluated through implementation of a logic model, pre- and post-knowledge statistics, attendance and self-evaluation of likelihood of environmental behavior change, and other metrics as they are determined. All new projects have specific, appropriate indicators written into their project contracts and scopes of work to ensure that all 319(h) projects adequately report environmental improvements. All active projects during SFY 2022 were evaluated with environmental results reported using this template. Care was taken to ensure that relevant metrics were included; as well as information regarding progress, partners, and leveraging of funding. Project updates utilizing the "Telling the Story" framework are included in Appendix C.

## Fiscal Summary

Contract funds were obligated through the 2021 Grant Funding Opportunity (GFO) process (in the summer/fall of 2021). Twelve projects were funded in the amount of \$791,430.00 in total. The awardees were as follows:

2021 319(h) Awards		Implementation Projects	
Entity	Proposal Name:		Proposed Award Amount
Carson Valley Conservation District	Genoa Carson River Bank Stabilization Phase 2		\$125,000.00
Kingsbury General Improvement Distr	Street Sweeping Operations		\$160,000.00
Mason Valley Conservation District	Blanchard Bank Restoration		\$86,000.00
Southern Nevada Water Authority	Initiatives to Reduce NPS Pollution in Southern Nevada		\$55,000.00
Truckee Meadows Parks Foundation	Rosewood Nature Study Area Phase 2		\$25,000.00
Nevada Tahoe Conservation District	Washoe County Lake Clarity Crediting Program		\$44,393.00
			<b>\$495,393.00</b>
2021 319(h) Awards		Public Outreach Projects	
Entity	Proposal Name:		
Carson Water Conservation District	Carson River Coalition Watershed Coordination Program		\$119,720.00
Sierra Nevada Journeys	Watershed Education Initiative		\$73,143.00
Nevada Outdoor School	Watershed Heroes		\$10,418.00
River Wranglers	Environmental Education in the Carson River Watershed		\$40,000.00
Keep Truckee River Beautiful	NPS Pollution Education, Outreach and Action		\$20,814.00
Get Outdoors Nevada	Southern Nevada Water Resources Training Hub		\$31,942.00
			<b>\$296,037.00</b>
	<b>Total Awarded</b>		<b>\$791,430.00</b>

Table 2: 2021 319(h) Awards

## Nonpoint Source Program Accomplishments

### Priority 1: Support/Grow Existing Local Watershed Efforts

The NPS Program has established effective long-term relationships with agencies, organizations and the private sector. NDEP strengthened these partnerships for continued implementation of water quality improvement and environmental education projects including:

- ◆ Carson Water Subconservancy District for implementation of the Carson River Adaptive Stewardship Plan;
- ◆ Douglas County, Washoe County and Nevada Department of Transportation for implementation of the Lake Tahoe TMDL;
- ◆ Southern Nevada Water Authority and Las Vegas Wash Coordination Committee for implementation of the Las Vegas Wash Comprehensive Adaptive Management Plan;

- ◆ One Truckee River, Cities of Reno, Sparks, Washoe County and other stakeholders for the implementation of the One Truckee River Management Plan and the Source Water/Watershed Based Plan for the Truckee River;
- ◆ Virgin River Coalition for the implementation of the Virgin River Watershed Plan; and
- ◆ Conservation Districts including Carson Valley, Dayton Valley, Smith Valley and Mason Valley for implementation of bank stabilization, riparian habitat restoration and environmental education projects.

The NPS Program continued to build relationships as outlined in the 2020-2024 Plan. Specific information regarding activities is reported below under each watershed, and more detailed information is attached in Appendix C: Project Updates.

## **Priority 2: Establish New Partnerships**

During SFY 2022, the NPS Program has met with a multitude of agencies to encourage increased leveraging of funding and to accelerate mitigation of NPS pollution throughout the state. Details follow.

### **Truckee River**

The Integrated Source Water Protection Program (ISWPP)/One Truckee River Management Plan (ISWPP) and GIS online tool can be viewed at [washoecountycleanwater.org](https://washoecountycleanwater.org). The online tool continues to be refined, and its use by regional planning staff will occur more frequently if the Truckee Meadows Regional Planning Agency is successful in integrating the tool into its planning documents. The coordination between NDEP's surface and groundwater programs in Nevada, and related collaboration with local stakeholders will continue to ensure implementation of broader-based water planning, protection and restoration in Nevada.

### **Lake Tahoe Basin {The Lake Tahoe TMDL implements strategies to eliminate discharge of fine sediment particles from nonpoint sources}.**

Implementation of the Total Maximum Daily Load Implementation Plan continued during SFY 22. Highlights of the extensive effort include:

- ◆ Successful implementation of the TMDL Management System annual operations cycle, including the following deliverables: Urban Implementing Partners' Stormwater Program Annual Report and Regional Stormwater Monitoring Program Annual Report; TMDL Performance Report; Findings and Recommendation Memo; Annual Strategy; executive Program Review Meeting and accompanying Decision Record Memo.
- ◆ Performed in depth assessment of ten-year milestone for program implementation. In 2021, California and Nevada urban implementers exceeded established credit targets resulting in fine sediment load reductions of nearly 600,000 pounds per year, the mass equivalent of about 206 cars. Nitrogen and phosphorus, both of which contribute to algae growth, have also been reduced by thousands of pounds per year. The report also finds that efforts to reduce pollutants entering the lake through forestland runoff, erosion of stream beds and banks, and air deposition were sufficient to achieve 10-year pollutant reduction goals.

- ◆ Entered into new 5-year interlocal agreements with each of the Nevada urban implementing partners. Agreements include updated interim load reduction targets to demonstrate progress toward attaining 34% FSP load reduction by the end of the 5-year timeframe.
- ◆ Launched project to assess BMP performance under conditions anticipated to occur as a result of climate change<sup>2</sup>.

<sup>2</sup>This effort is supported with CWA 106 grant funding.

- ◆ Coordinated with the Tahoe Science Advisory Council to: (1) prioritize and select projects to study the impacts of the Caldor Fire and 2021 wildfires on lake clarity; (2) data synthesis and assessment of 2021 lake clarity conditions; (3) preliminary actions toward developing an updated, three-dimensional lake clarity model; (4) developing a request for proposals to launch a new nearshore algal monitoring program.
- ◆ Bureau of Water Quality Lake Tahoe Unit staff collaborated and coordinated with partner agencies and organizations on several committees and workgroups with the overall goal of watershed health protection including the Nearshore Agency Workgroup, Stormwater Quality Improvement Committee, Lake Tahoe License Plate Grant Funding Opportunity Review Committee, Tahoe Interagency Executives Committee, and Lower Wood Creek Water Quality Improvement project advisory committee.

## **Carson River**

NPS Staff continued to meet with Natural Resources Conservation Service (NRCS) staff to continue planning efforts related to the National Water Quality Initiative Program as it is being applied in Nevada on the Middle Carson River. A FFY 2023 NWQI Implementation Phase Request was submitted to NRCS National Offices, but returned with a request for additional information. Coordination with NRCS, Carson Water Subconservancy District, and Carson Valley Conservation District continues to provide enough information to support NRCS National Offices in determining if the NWQI Request is fully completed and if it will advance to a funding phase through NRCS's Environmental Quality Incentives Program (EQIP).

Critical Source Areas are being delineated within the Selected NWQI HUC-12 watersheds (including the Town of Genoa-Carson River, Town of Gardnerville-East Fork Carson River, Lower West Fork Carson River, and the Brockliss Slough), and specific, measureable objectives are being drafted to guide project development that is consistent with Nevada's NPS State Management Plan and the Carson River Adaptive Stewardship Plan.

## **Walker River**

Nevada Division of State Parks received a 319(h) program grant in 2020 to assist them in the restoration of the recently-acquired state lands that were previously irrigated ranch lands. The goal is to remove the noxious weeds and restore native ecosystem to native, established plants before the irrigation is pulled off the land. Nevada Division of State Parks has accomplished 75% of the project tasks and the project is scheduled to be completed December 2022.

NDEP has secured funding and identified Walker Basin Conservancy as a potential lead entity to begin development of an EPA approved nine-element Watershed Management Plan for the East

Walker River. The initial steps will include developing a scope of work and budget, as well as, selecting a qualified firm to prepare the Watershed Management Plan. Walker Basin Conservancy will be responsible for selecting the subcontractor and oversee the subcontractor's development of the Watershed Management Plan.

319(h) grant program funds were awarded to the Mason Valley Conservation District to address two sections of unstable riverbank on the West Walker River. Both sections (totaling 450 linear feet) will be planned and engineered, however, only the 150 linear foot section will be implemented under this grant awarded in 2021 if additional funding for construction is not secured. Implementation will consist of a combination of rock structures, grading, revegetation and bioengineering practices. To reduce expenditures on construction mobilization and demobilization, implementation of the shorter stream segment has been put on hold until additional funding is secured such that both stream segments can be stabilized at the same time.

### **Lower Virgin River**

Nonpoint Source Program Branch Staff have been actively involved in the Virgin River Coalition (VRC) since its inception, and have played an important role on the Coalition's Steering Committee. The Coalition's Integrated Watershed Plan meets seven of the nine-elements required in an EPA Watershed Based Plan, and is further integrating a water quality element into the plan. At the last semiannual Coalition Workshop, breakout groups described immediate next steps to take when updating the plan. The Coalition's Watershed Coordinator, supported in part with NPS grant funds, meets regularly with Steering Committee and Working Group members to continue to advance objectives described in the watershed plan. Staff continues to be actively involved in coordination of this effort, including implementation tasks being taken by Working Group members. The VRC Steering Committee continued development of a Public Engagement Plan, and the Watershed Coordinator submitted Articles of Incorporation to the Nevada Secretary of State Office towards becoming a 501(c)3 nonprofit entity. Once accepted by the Secretary of State, the Coalition will be capable of administrating its own fiscal matters including submittal of grant applications to grantors without reliance on use of an outside fiduciary agent. The Nature Conservancy currently handles fiduciary matters for the Coalition under a Subgrant Agreement with NDEP.

### **Priority 3: Plan and Implement NPS Pollution Control Measures**

The NPS Program supported implementation of NPS pollution control measures to achieve load reductions and incremental progress toward watershed improvement. NDEP coordinated with partners to identify the most appropriate action to address site-specific water quality impairments. Projects were prioritized based on local support, available resources and potential load reductions. Project updates describing this work is presented in Appendix C.

### **Priority 4: Implement Robust Environmental Education Program**

The NPS Program continues to implement an effective environmental education program to create an informed and motivated public that supports and participates in NPS pollution prevention activities. Environmental education is accomplished through 319(h) contracted projects implemented by a network of local, state, federal and private partners who deliver watershed-specific programs to a diverse audience of stakeholders. This network includes Carson Water Subconservancy District, several conservation districts, City of Reno, University of Nevada Cooperative Extension, Clark County Water Reclamation District, Southern Nevada Water Authority, The Nature Conservancy, Sierra Nevada Journeys, Nevada Outdoor School and Great Basin Outdoor School.

With the majority of COVID-19 pandemic restrictions on gatherings being lifted, in-person educational events and activities have resumed. However, alternative teaching tools developed under the pandemic have not been abandoned. Rather, they continue to be used, including video conferencing and use of recorded videos for example, resulting in a greater number of audience members being reached. This was one of the few silver-linings of the pandemic. In SFY 2022, a total of five Project WET teacher trainings were conducted in person. Detailed information regarding contracted education and outreach projects is included in Appendix C.

NDEP continued to work with established partners, and continued to expand the outreach program throughout Nevada. Nevada's nonpoint outreach program continues to transition to empowering regional educators, providing partners with new tools and information to make their outreach programs more robust. Bureau of Water Quality NPS Branch's Education and Outreach Coordinator continues to break new ground in the area of soil health, and has provided numerous technical workshops to the agricultural community, regional outreach program staff and students, and the public at large.

### **Implementation: Watershed Activities**

Overviews of significant activities by watershed are delineated in the attached Quarterly Reports Matrices (Appendix A) and detailed information about progress and environmental results from active projects can be found in Appendix C (Project Updates).

### **Load Reductions**




Load reductions were reported and entered into EPA's Grants Reporting and Tracking System (GRTS) in March 2022. The load reductions numbers reported (for the 2021 Reporting Year: April 1, 2021 to March 31, 2022) were:

Nitrogen, LBS/YR	36,889
Phosphorus, LBS/YR	12,444
Sedimentation-Siltation, TONS/YR	1,490

Load reductions are summarized by watershed below. A detailed report on reported load reductions is attached as Appendix B.



Load reductions by watershed with reportable amounts for the reporting year are shown below:

		Nitrogen, lbs	Phosphorus, lbs	Sediment, tons
Nevada Total Load Reduction:		36,888.60	12,443.70	1,489.85
Load Reduction by Watershed				
		Nitrogen, lbs	Phosphorus, lbs	Sediment, tons
	Lake Tahoe Basin	36,005.00	12,002.50	1,037.55
	Colorado River Basin	1.60	0.20	0.00
	Carson River Basin	882.00	441.00	452.3

## Conclusion

Nevada's NPS Program has implemented the first three years of the 2020-2024 SMP and met the milestones set forward. The NPS Program will continue to focus efforts on the priorities of supporting and growing existing local watershed efforts, establishing new partnerships, planning and implementing NPS pollution control measures and implementing a robust environmental education program.

## Appendix A: Quarterly Report Matrices

**State Fiscal Year 2022 1st Quarterly Report**  
**July 1, 2021 - September 30, 2021**  
**319(h) Grant #C9-97908121**

**EPA Strategic Plan**

All tasks delineated in this quarterly report support the Environmental Protection Agency's Strategic Goal 1.2 A Cleaner, Healthier Environment and Objective 1.2: Provide for Clean and Safe Water.

**COMPONENTS OF NEVADA'S FFY 2020/SFY 2022 NPS MANAGEMENT PLAN**

**Goal #1: Prevent and reduce nonpoint source pollution in impaired waters and improve watershed health.**

**GENERAL**

**Objective A. Implement NPS Projects in Priority Watersheds and Document Successes.**

**Strategy I. Build and maintain strong partnerships to implement a successful NPS Program statewide.**

<p><b>Milestones:</b></p> <p>1. Coordinate with stakeholders in priority watersheds to develop watershed based plans, alternative restoration plans, and to prioritize and/or identify projects to implement.</p>	<p>The 2020 Integrated Source Water and 319(h) Watershed Protection Plan for Public Water Systems and the Truckee River in the Truckee Meadows (Plan) is complete. The Plan is fully digital, online and has been developed as a GIS planning tool. It is located at <a href="http://washoecountycleanwater.org">washoecountycleanwater.org</a>. EPA approved the plan on September 28th. Staff is building a stakeholder group in the Carson River watershed to translate the existing watershed plan to an online plan like the Truckee's plan. Staff met with Standards staff, NRCS and CWSD to determine next steps to get eligible producers onboard for conservation practices in the Carson Valley. The Virgin River Coalition Watershed Coordinator conducted 23 meetings with the VRC Steering Committee, Recreational and Native Fish Working Groups, and the City of Mesquite towards completion of working group objectives, planning River Clean Up and Workshop Events, and development of an outreach messaging plan. An in-person Coalition Workshop is planned to be held on October 21, 2021. An initial meeting was held to discuss a strategy to kick off an alternative restoration plan for the Walker River watershed.</p>
<p>2. Manage and oversee subgrants in priority watersheds.</p>	<p>Staff oversaw subgrants to ensure that they were on schedule and on budget. Staff reviewed subgrant quarterly reports and processed invoices and attended coordination meetings. Staff developed Scope of Work and budget for one new subgrant. Detail in sheet 2.</p>

**Strategy II. Document and report progressive achievement or success toward environment improvement.**

<p><b>Milestones:</b></p> <p>1. Incorporate measurable metrics into scope of works for subgrants.</p>	<p>When SOWs were developed, appropriate metrics were included in subgrant reporting requirements. Relaxation of COVID restrictions is allowing education subgrants to return to more normal operations, with precautions taken.</p>
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2. Report metrics annually in reports to EPA.

Metrics were reported to EPA in the Annual Report, which was submitted on August 30, 2021. Each subgrant was summarized with metrics reported. The next Annual Report will be submitted by September 1, 2022.

3. Develop and publicize at least one success story per year.

A progressive success story was submitted with the Annual Report for SFY 21 describing the efforts and results of Southern Nevada Water Authority's Initiatives to Reduce Nonpoint Source Pollution in Southern Nevada. Another progressive success story will be developed and submitted with the SFY 22 Annual Report in September 2022.

4. Evaluate progress of implementation of watershed based plans and/or alternative restoration plans.

The Carson River Adaptive Stewardship plan is being implemented on schedule. The Las Vegas Wash Comprehensive Adaptive Management Plan is being implemented on schedule. The Lake Tahoe TMDL is being implemented on schedule. EPA approved the Source Water/Watershed Plan for the Truckee River on September 28th. Work is beginning on both the Carson and the Walker River alternative restoration plans.

### **Strategy III. Provide efficient and effective administration of NPS Program.**

#### **Milestones:**

1. Invest in water quality improvement and environmental education projects that are likely to provide long-term load reductions and changes in behavior to achieve watershed wide improvement in water quality.

a. Release annual Grant Funding Opportunity that clearly specifies program priorities and requirements; review applications; select projects for funding based on established prioritization criteria.

The GFO was released in September and will close October 15, 2021.

b. Ensure selected proponents have sufficient resources, technical skills and commitments to implement and maintain the project for the design life of the project.

All active subgrants were overseen by grant managers.

2. Enter and maintain grant and project information in EPA Grants Reporting and Tracking System within required timeline.

Project data for newly executed Subgrants were entered into the GRTS database.

3. Report to EPA quarterly to document incremental progress toward achieving annual grant milestones.

This report satisfies this requirement for reporting for 1st Quarter SFY 22.

4. Report to EPA annually to document progress in achieving SMP and grant milestones including information submitted by outside agencies.

Annual Report for SFY 21 was submitted August 30, 2021. Annual Report for SFY 22 will be submitted by September 1, 2022.

5. Submit to EPA all required financial reports within required timeline. All financial reports will be submitted.

#### **Strategy IV. Provide Best Management Practice Resources.**

**Milestones:**

1. Maintain BMP Toolbox with statewide BMP resources available online.

BMP Resource links provided in the toolbox are periodically reviewed and updated, with new resources added as appropriate. Toolbox can be accessed at <https://ndep.nv.gov/water/rivers-streams-lakes/nonpoint-source-pollution-management-program/best-management-practices-toolbox>. NPS staff will be updating the State Handbook of BMPs over the next several years and will be reviewed and approved by the State Conservation Commission.

2. Provide technical BMP assistance to contractors, local agencies, or property owners as requested.

Technical assistance provided as requested. Staff provided soil conservation and strategic planning assistance to the Nevada Association of Conservation Districts. Staff provided erosion control technical resources for the development of a multi-agency publication. Staff is developing new technical BMP assistance for agricultural producers and other groups.

#### **Strategy V. Continue Collaboration with Integrated Source Water Protection Program.**

**Milestones:**

1. Complete Source Water/Watershed Management (SW/WS) Planning process for the Truckee River Watershed in Washoe County.

EPA approved the plan and applicants to the 2021 Grant Funding Opportunity will be able to be subawarded project funds.

2. Assist stakeholders in Washoe County to implement components of the SW/WS Management Plan.

Two projects identified under the plan were submitted under the Grant Funding Opportunity in 2020 and were awarded funds. Subgrants were executed for both projects last quarter. They are the City of Reno Chalk Creek Stabilization and Erosion Control project and the One Truckee River Public Restroom Installation and Urban River Education.

3. Identify potential other watersheds/counties to coordinate SW/WS Planning Processes.

Four HUC-12s in the Carson Valley were identified for collaboration between the SW and WS planning processes. Stakeholder building for the Carson River has begun. Meetings are being held with NRCS, CWSD and Standards staff to discuss creating a crosswalk to fill the criteria needed for the NRCS Watershed Assessment for NWQI, the update of the CRASP and the alternate restoration plan. Scoping has begun to initiate the alternate restoration plan process in the Walker River watershed. Staff is created a crosswalk to determine what the existing Virgin River Watershed Plan needs to be added to become an EPA-approvable plan and then determine how to fill the gaps. The gaps were regarding load reductions.

4. Attend SW or NPS conferences, working group meetings, webinars, etc. to discuss coordinating SW and NPS Programs.

5. Attend Ground Water Protection Task Force meetings and Western States Source Water conferences to further coordinate SW/NPS Programs.

While in-person conferences had been halted due to COVID complications, many online webinars and other virtual meeting platform opportunities were attended by NPS and SW staff. Many meetings were held with multiple stakeholders. Staff received direction to return to the office at the beginning of SFY 22 with telework options, so meetings will most likely become a mix between virtual and in-person meetings.

The Western States Source Water Conference planned to be held in Reno, hosted by NDEP, and highlighting the SW/WS coordination effort was translated into a two hour virtual conference held on February 24, 2021. GWPTF meetings were attended by staff.

#### **Strategy VI. 401 Certification Program.**

##### **Milestones:**

1. Issue 401 certifications for all federally permitted projects to ensure water quality standards are met and NPS issues are addressed.

NDEP 401 Certification actions this quarter include: 14 conditional Certifications and three waivers. There are currently 27 active projects seeking Water Quality Certification at various stages of the Certification process. Staff have been regularly communicating and meeting with project applicants, consultants, public employees (city, county, and state), and Army Corps of Engineers staff to provide guidance and to coordinate the new 401 Certification process. Technical assistance regarding appropriate use of BMPs to prevent water quality impairments was provided as needed.

#### **Strategy VII. Update NPS State Management Plan**

##### **Milestones:**

1. Evaluate SMP for update needs based on Integrated Report and discussions with watershed stakeholders.

2. Submit draft revised plan to EPA for review and discussion.

3. Submit final plan to EPA for approval.

No tasks this SFY year. SFY 22 is year two of the 2020-2024 Nevada NPS State Management Plan, which was approved in September, 2020.

#### **CARSON RIVER BASIN**

#### **Strategy I. Implement Carson River Adaptive Stewardship Plan**

##### **Milestones:**

CVCD and The Nature Conservancy are implementing

restoration projects on the prioritized reaches of the Carson River. Representatives from the Washoe Tribe of Nevada and California are finalizing their Bank Stabilization and Restoration Project design taking into consideration historical paths of the river, future erosional issues along the Carson River, and preservation of existing riparian vegetation.

1. Restore 1,250 feet of Carson River channel (250 feet per year) to reduce sediment by 50 tons/year and phosphorus by 50 lbs./year.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Environmental education was performed in the Carson River watershed by CWSD, River Wranglers, TNC River Fork Ranch, and Douglas County Stormwater Program. River Wranglers held education events for homeschool and summer school programs, and participated in Carson City Parks & Rec summer camps. The RW and TNC collaborated on a community work day that educated the participants about the river and NPSP from agriculture, among many other water quality discussions. CWSD continues to market and outreach about the Carson River Watershed through their "I am Carson River" campaign, through social media and videos.

3. Implement the CRASP and increase efforts on NDEP's prioritized river segments. Perform geomorphology study on prioritized segments to prioritize restoration projects. Develop a more cohesive strategy for implementation of river restoration projects in coordination with CWSD, DVCD, CVCD, AWG and TNC and develop phased approach.

Environmental education was performed in the Carson River watershed by CWSD, River Wranglers, TNC River Fork Ranch, and Douglas County Stormwater Program. River Wranglers held education events for Dayton HS, Silver Stage Middle School, Carson Colony, and Camp Carson. NPS pollution, watershed, and mercury awareness continue to be our priorities for Carson River watershed education. RW has been planning Carson River Snapshot days, a citizen science and youth education event, and planning many fall educational events. The RW and TNC collaborated on a community work day that educated the participants about the river and NPS pollution from agriculture, among many other water quality discussions. CWSD continues to market and outreach about the Carson River Watershed through their "I am Carson River" campaign, through social media and videos. Douglas County Stormwater Division held an educational event for a neighborhood adjacent to the river, educating about NPS pollution from residential property management, including NPS from lawn care. The Carson River Coalition Education conducted a quarterly meeting.

4. Utilize new technology (drones, etc.) to more effectively plan and monitor results of restoration on the Carson River.

No work this quarter.

5. Coordinate with AWG on their development and implementation of Vision plan for the West Fork of the Carson River segments in CA, and encourage development of a plan for the East Fork of the Carson River.

Carson Water Subconservancy District continues to meet with AWG and USFWS regarding the alternative restoration plan development for the East Fork of the Carson River.

6. Work with stakeholders to identify and implement additional projects for 319 or other agency funds.

Potential projects were discussed with CVCD, CWSD, DVCD and others.

## Strategy II. Implement Carson River Floodplain Management Plan

### Milestones:

1. Assist in implementation of outreach and education plan to support the CRFMP and increase understanding of the importance of floodplains in maintaining water quality.
2. Support the Living River approach with stakeholders through implementation of projects that release the Carson River to the floodplain.

Education and Outreach Coordinator attended Carson River Coalition Education Group meetings to coordinate flood awareness week which is coming up in the fall.

All currently subgranted projects support the Living River approach, with banks laid back, bioengineering stabilization techniques engaged, and minimal hardscaping of banks to minimize impacts downstream.

## LAS VEGAS WASH

## Strategy I. Implement Las Vegas Wash Comprehensive Adaptive Management Plan

### Milestones:

SNWA and CCWRD have open subgrant agreements with



1. Fund priority projects consistent with CAMP to reduce sediment and other nonpoint source pollutants to the Las Vegas Wash and Lake Mead.

SNWA and CCWRD have open subgrant agreements with BWQP. CCWRD's Subgrant's term was extended, and their grant award was augmented an additional \$15K to allow the district to continue NPS pollution outreach efforts, including development of October Stormwater Awareness Month in collaboration with the Nevada Department of Transportation, Keep Truckee Meadows Beautiful, and the Las Vegas Wash Coordination Committee.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

SNWA and CCWRD continue to conduct education programs utilizing new platforms compatible with Covid 19 restrictions. With Covid restrictions lifting, SNWA was able to resume implementation of their Spring Green-Up Revegetation event with a capped volunteer limit of 150 persons. Mabel Hoggard field trips continued to be held virtually utilizing recently created videos and in-class room presentations. CCWRD was able to provide in-person outreach efforts during the August Tri-State Seminar, completing 4 of 8 outreach events planned.

3. Conduct site visits to funded projects and to further coordinate efforts with identified stakeholders.

NPS staff are scheduled to attend the next Green Up event in October.

## LAKE TAHOE BASIN

### Strategy I. Manage the Lake Tahoe Total Maximum Daily Load Program to meet the Clarity Challenge of 24 meters by 2026.

#### Milestones:

1. Work with Urban Implementing Partners to identify projects and actions to meet load reduction targets and milestones contained in Interlocal Agreements.

Nevada jurisdictions exceeded 2020 credit targets specified in ILAs, achieving 689 credits which translates to a load reduction of just over 138,000 lbs./year. Staff participated in Road RAM and BMP RAM assessments conducted during the quarter.

2. Provide funding and staff support for water quality improvement project implementation and program operations improvement.

Staff participated in meetings and discussions regarding Washoe County's Lower Wood Creek Phase 1 project. The project started construction in summer 2021. Phase 1 is anticipated to be completed in October 2021.

3. Collaborate with Lahontan Water Board to execute the annual TMDL Management System cycle; including updating, maintaining and reporting implementation progress for urban and non-urban sources through the Lake Clarity Tracker.

Staff coordinated with Lahontan Water Board to finalize and release the 2021 TMDL Performance Report and post to the Lake Clarity Tracker. Staff also initiated developing the 2021 Findings and Recommendations Memo and 2022 TMDL Annual Strategy by putting out a call for stakeholder input related to new, important, and relevant scientific and technical information, that may support adjustments to the TMDL Program or related policies. Feedback received will be considered in development of these documents.

4. Renew Interlocal Agreements including updated commitments and schedule of load reduction and associated credit targets.

Staff responded to NDEP management review of updated interlocal agreements (ILAs) for the third TMDL milestone timeframe (2021-2026). Current ILA versions were set to expire on September 30. Staff sent drafts ILAs to Nevada urban implementing partners for review and worked to finalize documents in response to comments received. Douglas County scheduled to take the ILA to their Board of County Commissioners in October. As of the end of the quarter, the ILA is working its way through NDOT's approval process and is expected to be signed in October. Multiple attempts to reach out to Washoe County to inquire about their review and approval process and timing were not responded to. It is unknown if or when Washoe County will take the ILA renewal to their Board of County Commissioners for action.

5. Participate in Tahoe Science Advisory Council meetings to provide TMDL Management Agencies' perspective on key questions, information needs, and workplan development and prioritization.

Staff participated in meetings of the Tahoe Science Advisory Council. The primary topics of discussion were initiating projects to assess smoke and ash impacts to water quality and lake clarity. Summer of 2021 was an unprecedented year where the Tahoe watershed was covered in smoke for several months, including many days with hazardous air quality ratings. Furthermore, staff participated in agency and Science Council meeting to solicit monitoring of Caldor Fire impacts on water quality and lake clarity.

**Strategy II. Coordinate with partner organizations to protect water quality, watershed health, and ensure the effective use of public funding.**

1. Participate on the Stormwater Quality Improvement Committee to coordinate stormwater planning and design activities and to fulfill LTRA project prioritization and reporting requirements.

No SWQIC meetings held during the quarter.

2. Coordinate with the Tahoe Regional Planning Agency to advance Regional Plan goals and Threshold attainment.

Staff coordinated with TRPA to assess the algal monitoring program and develop and request for proposals to update monitoring program and associated methods and sites.

3. Participate on grant committees and technical advisory committees as needed.

Staff participated in TRPA SRC monthly Interagency Shoreline Coordination Group.

**Strategy III. Coordinate with agency partners to address nearshore water quality.**

**Milestones:**

1. Coordinate with Nearshore Agency Workgroup agencies to implement the Nearshore Resource Allocation Program.

Staff participated in several NAWG meetings focused on: crafting an RFP to develop a comprehensive algal monitoring program, and continuation of human health monitoring at select locations throughout the basin.

2. Coordinate TMDL and nearshore program activities and look for opportunities to prioritize implementation actions where multi-benefit objectives may be achieved.

No activity.

## TRUCKEE RIVER BASIN

### Strategy I. Develop Source Water/Watershed Management Plan and get local and EPA Approval.

#### Milestones:

The SW/WS Plan was approved by EPA on September 28. Stakeholders are eligible for project funds in the 2021 GFO.

1. Work with local jurisdictions and stakeholders to integrate and complete the SW/WS plan, including the Tributary Plan developed by the TMSWPCC.

See above. This milestone is complete.

2. Present final plan to local boards and commissions for approval. Submit to EPA as a 9-element plan and a Source Water Protection Plan.

### Strategy II. Implement Approved Plan.

#### Milestones:

1. Implement projects and steps delineated in the plan. Fund competitive projects through annual GFO consistent with the plan.

Three projects identified in the plan have been submitted for consideration to the GFO Technical Advisory Committee and two were funded in 2020.

### Strategy III. Coordinate with One Truckee River and OTR Stakeholders to continue implementation of OTR Plan.

#### Milestones:

1. Participate on OTR Board.

NPS Branch Supervisor attended monthly board meetings as a member.

2. Participate in OTR Partnership meetings and events.

The next OTR Partnership meeting will be held on October 26th.

3. Support water quality components of the OTR Plan.

Action plan item under Goal 1 was completed in the SW/WS Based Plan conclusion. Subgrant with OTR funding a restroom attendant and outreach position was overseen. An additional subgrant with OTR to fund a second restroom was executed.

### Strategy IV: Continue and/or build new partnerships to implement NPS related projects.

#### Milestones:

1. Work with current and new partners to identify additional implementation or education projects.

Project Profiles were developed in the creation of the SW/WS Plan, identifying implementation and education projects and partners. BWQP staff has held multiple meeting with key education partners in Las Vegas to develop a larger effort and increase Project WET education in Southern Nevada. Staff also met with Nevada Outdoor School to strategize developing a Project WET program in the Elko area.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Environmental education to reduce NPS pollution was delivered throughout the watershed by Sierra Nevada Journeys' Watershed Education Initiative. Sierra Nevada Journeys provided interactive watershed education programs through our Virtual STEM Classrooms to 913 students and 32 educators in northern Nevada despite COVID-19 related difficulties. Great Basin Outdoor School conduct various field days and summer Adventure Day Camps on the Truckee River at the River School Farm and Lake Tahoe. Keep Truckee Meadows Beautiful conducted many youth education camps and teacher trainings as part of their Watershed Warriors program.

## **VIRGIN RIVER BASIN**

**Strategy I. Collaborate with existing and emerging natural resource related local working groups and support efforts that may maintain or improve water quality.**

### **Milestones:**

1. Attend local working group meetings when deemed appropriate, including with the Virgin River Coalition.
2. Provide technical assistance and grant funding to support local working groups.
3. Identify other resources to facilitate implementation of water quality projects.
4. Encourage local efforts to adapt watershed plan to cover the 9 required EPA elements.

Coalition Steering Committee and Working Group members continued to meet to insure Coalition Efforts remain aligned with the 319(h) grant scope of work and coalition mission. A second VRC Bi-Annual Workshop has been organized by the Watershed Coordinator to be held October 21, 2021, including a second Virgin River Clean-Up Event. A series of Virgin River watershed related lectures has been coordinated and scheduled to occur in October, 2021 including a lecture to the general public on nonpoint source pollution.

The Subgrant Agreement with the Nature Conservancy that supports Virgin River Coalition efforts, including support of a Watershed Coordinator, remains open.

No new activity.

Several meetings with the Virgin River Coalition, Steering Committee and Working Groups were attended by staff to maintain communication and stress the importance of keeping water quality and NPS pollution management a key component of the Coalition's watershed improvement strategy.

## **WALKER RIVER BASIN**

**Strategy I. Work with local, state, federal and private resources to address nonpoint source pollution in the Walker River Basin.**

### **Milestones:**

1. Restore 500 feet of Walker River channel (100 feet per year) to reduce sediment by 20 tons/year and phosphorus by 20 lbs./year.
2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Native vegetation was planted and cottonwoods were propagated by Walker River State Park staff. Invasive weeds were eradicated with spot weed burning and herbicide treatments.

Walker River State Park staff held virtual learning sessions regarding the Walker River.

**Strategy II. Coordinate with Walker River State Park to improve water quality in Walker River watershed.**

### **Milestones:**

Native vegetation was planted and cottonwoods were

1. Work with Nevada Division of State Parks and the Walker River Conservancy to implement ecological restoration projects at a park-scale (14,000 acres) at Walker River State Park.

propagated by Walker River State Park staff. Invasive weeds were eradicated with spot weed burning and herbicide treatments. Project is 50% complete.

2. NDEP will approach State Parks regarding being a main stakeholder in the development of an alternative restoration plan or watershed based plan. Other stakeholders (Federal, State, Local, Nonprofit, Private and Tribal) will be invited if they are.

NPS staff working on the alternate restoration plan will approach State Parks regarding being a main stakeholder of plan development. The Park Supervisor was promoted and that position is currently vacant.

**Goal #2. Educate and inform the public about nonpoint source pollution, watershed stewardship and water quality protection to increase awareness, promote behavior change and empower effective water quality protection actions.**

**Objective A. Implement high quality, effective NPS Environmental Education Program.**

**Strategy I. Implement Environmental Education Strategic Plan.**

**Milestones:**

1. Develop next five year Environmental Education Strategic Plan.

The educational and outreach position has developed a draft plan to enhance education and outreach for industry professionals, stakeholders, and decision makers regarding NPS pollution with a emphasis on exploring opportunities to increase awareness regarding NPS pollution on agricultural lands. Opportunities to develop a NPS technical workshop series and/or a training program is being brainstormed. In addition, staff is engaged at the state level for educating about soil health as a tool for mitigating erosion and nutrient management. COVID has posed a challenge in selecting the best mechanism for delivery. In addition many potential partners around the state need time to navigate their ability to commit and collaborate on such efforts.

2. Conduct Project WET Workshops for teachers and other community educators.

Get Outdoors Nevada held several online Project WET workshops for Clark County teachers. Great Basin Outdoor School held an in person teacher training Project WET workshop at the River School Ranch. Two workshops were scheduled and cancelled due to low enrollment.

3. Conduct and/or assist with environmental education events including Earth Day, river snapshot monitoring, green-ups, school environmental science classes, etc.

Staff participated in presented at two educational field trips with Great Basin Outdoor School. Staff has been engaged in the planning of the Carson River Snapshot Days.

4. Publish Nevada Water Quality News newsletter.

The Fall newsletter was developed during this quarter and be viewed at <https://conta.cc/3lIFmWs>. Staff developed a Story Map highlighting 319(h) projects funded in the past 5 years. View story map here <https://storymaps.arcgis.com/stories/5352ad72d61941508e252e7e364cf079>.

5. Maintain and regularly update Environmental Education web site.

Project WET website is updated every two months and improved as needed.

6. Provide education and training opportunities on water quality topics of concern to watershed partners, stakeholder organizations, and education institutions upon request.

OTR staff provided presentations to the Northern Nevada Water Planning Commission and the Western Regional Water Commission.

7. Provide high quality EE materials to school and community educators and the public including Project WET curriculum guides, activity booklets, fact sheets, maps and other resources.

Staff has provided education curriculum resources, activities, and online training opportunity announcements upon request and to all members of the Water Education list serv. In addition, staff is developing video training for teaching about erosion control, runoff and soil health for mitigating NPS pollution.

## **Strategy II. Support local or regional environmental education projects.**

### **Milestones:**

1. Invest in environmental education projects that encourage behavior change and citizen involvement in water quality improvement efforts.

Subgrants with Sierra Nevada Journeys, Great Basin Outdoor School, River Wranglers, Get Outdoors Nevada, CWSD, and SNWA supported environmental education efforts throughout the state. These subgrants were overseen by staff and many adjusted their Scope of Works and budgets due to transitions to distance learning techniques due to COVID. Sierra Nevada Journeys continued successful implementation of the Watershed Education Initiative through in-person programming. The Initiative inspired students to learn about their local watersheds and non-point source pollution, and empowered them to take care of their local water sources and reached approximately 750 students in the past quarter.

2. Continue education and training on environmental program effectiveness measurements and standards.

New staff has worked to ensure that all education programs funded in part by the NPS Program will have effective measures and reportable standards that will be reported to EPA.

3. Require appropriate program measurement metrics to determine efficacy of funded education projects.

Appropriate measures were built into the Scope of Works of new education subgrants.

4. Participate with watershed partner programs to support and evaluate.

Evaluations occur at the end of the year and the end of the subgrant.

## **Goal #3 Coordinate with State, Federal, local agencies and Tribes to prevent and reduce nonpoint source pollution impacts to surface and groundwater.**

### **Objective A. Maintain and improve existing partnerships and build new partnerships with other agencies, nonprofit organizations, local watershed groups and private landowners.**

#### **Strategy I. Provide opportunities for local, State and Federal agencies, Tribes, environmental organizations, etc. to coordinate and collaborate on NPS related issues.**

### **Milestones:**

Staff continues to collaborate and meet with all the partners

1. Identify and contact appropriate agencies and stakeholders including BLM, USFS, NRCS, Tribes, NDOW, Nevada Association of Conservation Districts, The Nature Conservancy and others regarding collaboration opportunities.

listed to the left. Meetings were held with BLM, USFS, NRCS, and TNC.

2. Provide technical assistance, education and training to stakeholders on water quality related topics and how to develop project proposals.

Technical assistance was given to several partners. Staff has been assisting CWSD with developing a watershed scale program for educating and implementing agricultural conservation practices, including soil health management systems.

3. Maintain and update contact information to notify agencies of the release of Grant Funding Opportunity for 319 funds.

The NPS GFO Contact List was updated and utilized to notify parties of the 2021 319(h) GFO.

4. Provide opportunity for agencies to participate in triennial review of State water quality standards.

No triennial review this quarter.

## **Strategy II. Coordinate with NRCS to implement National Water Quality Initiative and other Farm Bill Programs.**

### **Milestones:**

1. Participate in Nevada NRCS State Technical Advisory Committee meetings to encourage the use of Farm Bill funding towards water quality improvement.

No STAC meetings this quarter.

2. Meet with NRCS to discuss Farm Bill programs, develop shared watershed priorities and water quality restoration goals and identify project or education opportunities.

Staff met with NRCS several times strategizing water quality goals in the NWQI watersheds in the Carson Valley.

3. Partner with NRCS to transfer lessons learned from the NWQI to inform future water quality restoration via Farm Bill/EQIP funding.

No work this quarter.

4. Engage NRCS in dialogue about state water quality priorities and watersheds; share maps and other information.

Staff met with NRCS several times strategizing water quality goals in the NWQI watersheds in the Carson Valley.

## **Objective B. Ensure consistency among local, state, federal programs and NDEP Nonpoint Source Pollution Management Plan.**

### **Strategy I. Ensure consistency between federal and state programs.**

#### **Milestones:**

1. Review and comment as determined appropriate on EAs, EISs, Resource Area Management Plans and grazing allotment plans to ensure water quality concerns are addressed.

Staff receives all State Clearinghouse memos via email and reviews the announcement to see if there is comment needed regarding water quality and nonpoint source impacts.

DEP S	Grant #/DIV	Date	Contractor	Project	Amount
*S 19-030-1	DIV 37	03/03/20-6/30/22	Truckee Meadows Regional Planning Agency	Building Spatial Awareness of NPS Pollution in the Truckee Meadows	\$25,002.00
S 19-031	DIV 46/97	4/24/19-12/31/22	Kingsbury GID	Kingbury GID Street Sweeping Operations	\$155,000.00
*20-014	DIV 46/97	6/20/19-12/31/21	River Wranglers	Carson River Watershed Environmental Education Program	\$114,373.78
20-026	DIV 97	11/22/19-12/31/21	Incline Village General Improvement District	Pilot Project to Reduce Source Water Plastic Pollution at Lake Tahoe	\$61,995.00
*20-027	DIV 97	3/10/20-3/31/22	Washoe County Community Service	Lower Wood Creek Phase 1 Water Quality Improvement Project	\$200,000
*20-056	DIV 97/37	2/19/20-6/30/22	Clark County Water Reclamation District	NPS Pollution Outreach and Education Program	\$62,000
20-058	DIV 37	1/27/20-12/31/21	Carson Water Subconservancy District	Carson River Coalition Watershed Coordination Program	\$237,000.00
20-059	DIV 37	2/6/20-12/31/21	Nevada Tahoe Conservation District	Washoe County Lake Clarity Crediting Program	\$39,229.92
20-062	DIV 37/46	4/28/20-12/31/21	Carson Valley Conservation District	Genoa West Fork Carson River Bank Rehabilitation Phase I	\$100,000
20-063	DIV 37	3/10/20-12/31/21	Nevada Land Trust	Watershed Management Plan for the Truckee River Watershed	\$99,998.00
20-064	DIV 96/37	2/24/20-12/31/22	The Nature Conservancy	River Fork Ranch Bank Restoration Project	\$30,541.00
20-065	DIV 37	6/4/20-12/31/22	Nevada Division of State Parks	Riparian Restoration at Walker River Recreation Area	\$100,000
20-073	DIV 97	8/5/20-12/31/21	Southern Nevada Water Authority	Initiatives to Reduce NPS Pollution in Southern Nevada 2020	\$39,950.00
21-007	DIV 46/37	7/28/20-12/31/22	Great Basin Outdoor School	Valuing and Protecting our Watershed	\$94,569.00
21-019	DIV 99	2/4/20-12/31/23	Tahoe Regional Planning Agency	BMP Technical Assistance and Lower Kingbury Treatment	\$160,506.00
21-020	DIV 99	2/12/21-12/31/22	The Nature Conservancy	Virgin River Coalition Watershed Coordination	\$41,625.00
21-024	DIV 99	2/9/21-12/31/22	Sierra Nevada Journeys	Watershed Education Initiative	\$70,000.00
21-027	DIV 99	3/31/21-6/30/23	Carson Valley Conservation District	Genoa West Fork Carson River Bank Rehabilitation Phase 2	\$150,000.00
21-029	DIV 99	4/28/21-12/31/22	Washoe Tribe of NV and CA	East Carson River Bank Stabilization and Restoration	\$100,000
21-030	DIV 99	5/19/21-12/31/22	Southern Nevada Water Authority	Initiatives to Reduce NPS Pollution in Southern Nevada 2020	\$67,500.00
21-031	DIV 99/97/46	6/17/21-12/31/23	City of Reno	Chalk Creek Stabilization and Erosion Control at Sapphire Ridge	\$125,000.00
21-033	DIV 99	5/19/21-12/31/22	Douglas County	Westwood Neighborhood & Douglas High School NPS Outreach & LID/BMP	\$28,776.00
22-011	DIV 37	7/28/21-12/31/22	One Truckee River	Public Restroom and Urban River Education	\$119,920.00

\* Grant term extended

Strikethrough indicates subgrant terminated



**State Fiscal Year 2022 2nd Quarterly Report**  
**October 1, 2021 - December 31, 2022**  
**319(h) Grant #C9-97908121**

**EPA Strategic Plan**

All tasks delineated in this quarterly report support the Environmental Protection Agency's Strategic Goal 1.2 A Cleaner, Healthier Environment and Objective 1.2: Provide for Clean and Safe Water.

**COMPONENTS OF NEVADA'S FFY 2020/SFY 2022 NPS MANAGEMENT PLAN**

**Goal #1: Prevent and reduce nonpoint source pollution in impaired waters and improve watershed health.**

**GENERAL**

**Objective A. Implement NPS Projects in Priority Watersheds and Document Successes.**

**Strategy I. Build and maintain strong partnerships to implement a successful NPS Program statewide.**

**Milestones:**

1. Coordinate with stakeholders in priority watersheds to develop watershed based plans, alternative restoration plans, and to prioritize and/or identify projects to implement.

The 2020 Integrated Source Water and 319(h) Watershed Protection Plan for Public Water Systems and the Truckee River in the Truckee Meadows (Plan) is complete and approved by EPA. The Plan is fully digital, online and has been developed as a GIS planning tool. It is located at [washoecountycleanwater.org](http://washoecountycleanwater.org). Staff built a stakeholder group in the Carson River watershed to translate the existing watershed plan to an online plan like the Truckee's plan. Staff met with Standards staff, NRCS and CWSD monthly to populate a crosswalk for NRCS's Watershed Assessment to open up NRCS NWQI funding for conservation practices in the Carson Valley. Concurrently, Standards staff The Virgin River Coalition Watershed Coordinator conducted 26 meetings with the VRC Steering Committee, Recreational and Native Fish Working Groups, and the City of Mesquite towards completion of working group objectives, planning River Clean Up and Workshop Events, and development of an outreach messaging plan. An in-person Coalition Workshop is planned to be held on April 21, 2022. A second meeting was held to strategize an alternative restoration plan for the Walker River watershed.

2. Manage and oversee subgrants in priority watersheds.

Staff oversaw subgrants to ensure that they were on schedule and on budget. Staff reviewed subgrant quarterly reports and processed invoices and attended coordination meetings. The Grant Funding Opportunity closed on October 15, 2021 and the Committee selected 12 subgrant awards in the total amount of \$791,000. Staff started developing Scope of Works and budgets for the new subawards.

**Strategy II. Document and report progressive achievement or success toward environment improvement.**

**Milestones:**

1. Incorporate measurable metrics into scope of works for subgrants.

When SOWs were developed, appropriate metrics were included in subgrant reporting requirements. Relaxation of COVID restrictions is allowing education subgrants to return to more normal operations, with precautions taken.

2. Report metrics annually in reports to EPA.

Metrics were reported to EPA in the Annual Report, which was submitted on August 30, 2021. Each subgrant was summarized with metrics reported. The next Annual Report will be submitted by September 1, 2022.

3. Develop and publicize at least one success story per year.

A progressive success story was submitted with the Annual Report for SFY 21 describing the efforts and results of Southern Nevada Water Authority's Initiatives to Reduce Nonpoint Source Pollution in Southern Nevada. Another progressive success story will be developed and submitted with the SFY 22 Annual Report in September 2022.

4. Evaluate progress of implementation of watershed based plans and/or alternative restoration plans.

The Carson River Adaptive Stewardship plan is being implemented on schedule. The Las Vegas Wash Comprehensive Adaptive Management Plan is being implemented on schedule. The Lake Tahoe TMDL is being implemented on schedule. EPA approved the Source Water/Watershed Plan for the Truckee River on September 28th. Work is beginning on both the Carson and the Walker River alternative restoration plans.

### **Strategy III. Provide efficient and effective administration of NPS Program.**

#### **Milestones:**

1. Invest in water quality improvement and environmental education projects that are likely to provide long-term load reductions and changes in behavior to achieve watershed wide improvement in water quality.

a. Release annual Grant Funding Opportunity that clearly specifies program priorities and requirements; review applications; select projects for funding based on established prioritization criteria.

The Grant Funding Opportunity closed on October 15, 2021 and the Committee selected 12 subgrant awards in the total amount of \$791,000. Staff started developing Scope of Works and budgets for the new subawards.

b. Ensure selected proponents have sufficient resources, technical skills and commitments to implement and maintain the project for the design life of the project.

All active subgrants were overseen by grant managers.

2. Enter and maintain grant and project information in EPA Grants Reporting and Tracking System within required timeline.

Project data for newly executed Subgrants were entered into the GRTS database.

3. Report to EPA quarterly to document incremental progress toward achieving annual grant milestones.

This report satisfies this requirement for reporting for 2nd Quarter SFY 22.

4. Report to EPA annually to document progress in achieving SMP and grant milestones including information submitted by outside agencies.

Annual Report for SFY 21 was submitted August 30, 2021. Annual Report for SFY 22 will be submitted by September 1, 2022.

5. Submit to EPA all required financial reports within required timeline. All financial reports will be submitted.

#### **Strategy IV. Provide Best Management Practice Resources.**

**Milestones:**

1. Maintain BMP Toolbox with statewide BMP resources available online.

BMP Resource links provided in the toolbox are periodically reviewed and updated, with new resources added as appropriate. Toolbox can be accessed at <https://ndep.nv.gov/water/rivers-streams-lakes/nonpoint-source-pollution-management-program/best-management-practices-toolbox>. NPS staff begun efforts to rewrite the State Handbook of BMPs, including identification of potential Stakeholders, Working Group and Technical Advisory Group Members. A project completion Gantt Chart has been prepared that projects that completion of the rewrite will take at least 20 months.

2. Provide technical BMP assistance to contractors, local agencies, or property owners as requested.

Technical assistance provided as requested. Staff provided soil conservation and strategic planning assistance to the Nevada Association of Conservation Districts. Staff provided erosion control technical resources for the development of a multi-agency publication. Staff is developing new technical BMP assistance and soil health consortium for agricultural producers and other groups.

#### **Strategy V. Continue Collaboration with Integrated Source Water Protection Program.**

**Milestones:**

1. Complete Source Water/Watershed Management (SW/WS) Planning process for the Truckee River Watershed in Washoe County.

EPA approved the plan. Subaward projects under the Plan are being implemented.

2. Assist stakeholders in Washoe County to implement components of the SW/WS Management Plan.

Two projects identified under the plan were submitted under the Grant Funding Opportunity in 2020 and were awarded funds. Subgrants were executed for both projects last quarter. They are the City of Reno Chalk Creek Stabilization and Erosion Control project and the One Truckee River Public Restroom Installation and Urban River Education.

3. Identify potential other watersheds/counties to coordinate SW/WS Planning Processes.

Four HUC-12s in the Carson Valley were identified for collaboration between the SW and WS planning processes. Meetings are being held monthly with NRCS, CWSD and Standards staff and the crosswalk to fill the criteria needed for the NRCS Watershed Assessment for NWQI is 50% complete. Standards staff have developed the draft vision (alternate restoration) plan. Scoping has begun to initiate the alternate restoration plan process in the Walker River watershed. Staff is created a crosswalk to determine what the existing Virgin River Watershed Plan needs to be added to become an EPA-approvable plan and then determine how to fill the gaps. The gaps were regarding load reductions.

4. Attend SW or NPS conferences, working group meetings, webinars, etc. to discuss coordinating SW and NPS Programs.

While in-person conferences had been halted due to COVID complications, many online webinars and other virtual meeting platform opportunities were attended by NPS and SW staff. Many meetings were held with multiple stakeholders. Staff received direction to return to the office at the beginning of SFY 22 with telework options, so meetings will most likely become a mix between virtual and in-person meetings.

5. Attend Ground Water Protection Task Force meetings and Western States Source Water conferences to further coordinate SW/NPS Programs.

The Western States Source Water Conference planned to be held in Reno, hosted by NDEP, and highlighting the SW/WS coordination effort was translated into a two hour virtual conference held on February 24, 2021. GWPTF meetings were attended by staff.

#### Strategy VI. 401 Certification Program.

##### Milestones:

1. Issue 401 certifications for all federally permitted projects to ensure water quality standards are met and NPS issues are addressed.

NDEP 401 Certification actions this quarter include: 5 conditional Certifications, two waivers, and one denial. There are currently 17 projects with active Water Quality Certification Requests. Staff have been regularly communicating and meeting with project applicants, consultants, public employees (city, county, and state), and Army Corps of Engineers staff to provide guidance and to coordinate the 401 Certification process in response to the return to the 1971 Certification Rule. Technical assistance regarding appropriate use of BMPs to prevent water quality impairments was provided as needed.

#### Strategy VII. Update NPS State Management Plan

##### Milestones:

1. Evaluate SMP for update needs based on Integrated Report and discussions with watershed stakeholders.

2. Submit draft revised plan to EPA for review and discussion.

3. Submit final plan to EPA for approval.

No tasks this SFY year. SFY 22 is year two of the 2020-2024 Nevada NPS State Management Plan, which was approved in September, 2020.

## CARSON RIVER BASIN

### Strategy I. Implement Carson River Adaptive Stewardship Plan

#### Milestones:

1. Restore 1,250 feet of Carson River channel (250 feet per year) to reduce sediment by 50 tons/year and phosphorus by 50 lbs./year.

CVCD and The Nature Conservancy are implementing restoration projects on the prioritized reaches of the Carson River. TNC completed implementation and monitoring of native vegetation establishment and bioengineering techniques to reduce streambank erosion along the Brockliss Slough and West Fork of the Carson River through the River Fork Ranch Bank Restoration project. The CVCD has completed construction on three more sites along a 1 mile stretch of the Carson River in Genoa. At site a combination of traditional rip-rap and bioengineering techniques are installed to stabilize the soil, improve water quality and re-establish desirable vegetation for wildlife. The Washoe Tribe of Nevada and California conducted site visits with permitting agencies (USACE, NV State Lands, THPO) to determine the applicability of federal, tribal, and local authorizations for their bank restoration project along the Carson River. Coordination with THPO has begun to ensure cultural resources are not damaged during soil-disturbing activities. Tribal Council has approved of project plans through resolution which has been coordinated with Ranch Manager. Dayton Valley Conservation District has worked on board communications/actions regarding prioritization criteria, field survey work (weather and river permitting), and strategy development in preparation for repairs in the summer/fall or when conditions permit regarding their Evaluation/Prioritization of Middle Carson River Projects with Associated Minor Repairs subgrant.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Environmental education was performed in the Carson River watershed by CWSD, River Wranglers, TNC River Fork Ranch, and Douglas County Stormwater Program. River Wranglers conducted the Carson River Snapshot Days annual education event. The event was modified and include jsut one school and one location on the River, due to restraints and non committment from other schools throughout the watershed. The RW and TNC collaborated on a community work day that educated the participates about the river and NPSP from agriculture, among many other water quality discussions. CWSD continues to market and outreach about the Carson River Watershed through their "I am Carson River" campaign, through social media and videos.

3. Implement the CRASP and increase efforts on NDEP's prioritized river segments. Perform geomorphology study on prioritized segments to prioritize restoration projects. Develop a more cohesive strategy for implementation of river restoration projects in coordination with CWSD, DVCD, CVCD, AWG and TNC and develop phased approach.

Efforts are being increased on NDEP's prioritized river segments through the stakeholder group developing the NRCS Watershed Assessment for NWQI, the vision plan and the update of the CRASP. The geomorphology study has been identified as a need and the group is identifying funding sources and scope to implement. The Watershed Assessment will identify necessary projects and conservation practices to implement and will prioritize them.

4. Utilize new technology (drones, etc.) to more effectively plan and monitor results of restoration on the Carson River.

No work this quarter.

5. Coordinate with AWG on their development and implementation of Vision plan for the West Fork of the Carson River segments in CA, and encourage development of a plan for the East Fork of the Carson River.

Carson Water Subconservancy District continues to meet with AWG and USFWS regarding the alternative restoration plan development for the East Fork of the Carson River.

6. Work with stakeholders to identify and implement additional projects for 319 or other agency funds.

Potential projects were discussed with CVCD, CWSD, DVCD and others.

#### Strategy II. Implement Carson River Floodplain Management Plan

##### Milestones:

1. Assist in implementation of outreach and education plan to support the CRFMP and increase understanding of the importance of floodplains in maintaining water quality.

Education and Outreach Coordinator attended Carson River Coalition Education Group meetings to coordinate flood awareness week which is coming up in the fall.

2. Support the Living River approach with stakeholders through implementation of projects that release the Carson River to the floodplain.

All currently subgranted projects support the Living River approach, with banks laid back, bioengineering stabilization techniques engaged, and minimal hardscaping of banks to minimize impacts downstream.

#### LAS VEGAS WASH

#### Strategy I. Implement Las Vegas Wash Comprehensive Adaptive Management Plan

##### Milestones:

1. Fund priority projects consistent with CAMP to reduce sediment and other nonpoint source pollutants to the Las Vegas Wash and Lake Mead.

SNWA and CCWRD have open subgrant agreements with BWQP. SNWA received a 2021 Grant Award to continue annual Green-Up Events, Magnet School Field Trips and to begin Project WET Teacher Trainings at the Las Vegas Springs Preserve.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

SNWA and CCWRD continue to conduct education programs utilizing new platforms compatible with Covid 19 restrictions. With Covid restrictions easing, SNWA held their Fall Green-Up Revegetation event which was attended by 350 staff and volunteers, and resulted in the treatment of 12 acres. CCWRD coordinated with the Nevada Department of Transportation and executed Stormwater Pollution Awareness Month (SPAM) in October. The event included a K-6th grade Stormwater Pollution Poster Contest that received 212 entries, with the best posters published in a Stormwater Calendar. A Stormwater Adventure theme workbook was published. Nine outreach events were attended, while 381 visits to a Stormwater Program Kiosk were made. Billboards with NPS messaging were viewed by 9 million drivers during the quarter.

3. Conduct site visits to funded projects and to further coordinate efforts with identified stakeholders.

Staff participated in SNWA's Fall Green-Up Event and met with outreach staff to discuss new NPS outreach strategies including teacher trainings to be held at the Las Vegas Springs Preserve.

## LAKE TAHOE BASIN

### Strategy I. Manage the Lake Tahoe Total Maximum Daily Load Program to meet the Clarity Challenge of 24 meters by 2026.

#### Milestones:

1. Work with Urban Implementing Partners to identify projects and actions to meet load reduction targets and milestones contained in Interlocal Agreements.

Two Tahoe projects were selected to receive a 2021 319(h) grant award: Kingsbury Grade General Improvement District for the purchase of a regenerative air sweeper; and (2) Nevada Tahoe Conservation District to support Washoe County in fulfilling their obligation and commitment to implement the TMDL and participate in the Lake Clarity Credit Program. Staff participated in Road RAM and BMP RAM assessments conducted during the quarter.

2. Provide funding and staff support for water quality improvement project implementation and program operations improvement.

Staff participated in meetings and discussions regarding Washoe County's Lower Wood Creek Phase 1 project. The project started construction in summer 2021. Phase 1 was for all intents and purposes completed in October 2021. This did not include installation of two water quality basins as initially planned due to issues securing easements in a timely manner. Staff facilitated approval of Washoe County's request to transfer residual funding for Phase 1 to Phase 2 which will include installing the basins.

3. Collaborate with Lahontan Water Board to execute the annual TMDL Management System cycle; including updating, maintaining and reporting implementation progress for urban and non-urban sources through the Lake Clarity Tracker.

The annual TMDL Program Review Meeting with TMDL executives was held in October to assess programmatic progress, review annual findings and recommendations, and discuss next year priorities and activities. Staff coordinated with Lahontan Water Board to finalize and release for stakeholder review the draft 2021 Findings and Program Recommendations Memo and 2022 TMDL Annual Strategy. Feedback received will be considered in finalizing recommendations put forth in these documents.

4. Renew Interlocal Agreements including updated commitments and schedule of load reduction and associated credit targets.

Staff coordinated with Nevada urban implementing partners to address comments provided on updated interlocal agreements (ILAs) for the third TMDL milestone timeframe (2021-2026). ILA versions were approved by all three entities during the quarter. No major changes to the agreements were made. The main change was to update the pollutant load reduction target and milestone schedules for the upcoming five-year term.

5. Participate in Tahoe Science Advisory Council meetings to provide TMDL Management Agencies' perspective on key questions, information needs, and workplan development and prioritization.

Staff participated in meetings of the Tahoe Science Advisory Council. The primary topics of discussion were initiating projects to assess smoke and ash impacts to water quality and lake clarity. Summer of 2021 was an unprecedented year where the Tahoe watershed was covered in smoke for several months, including many days with hazardous air quality ratings. Furthermore, staff participated in agency and Science Council meeting to solicit monitoring of Caldor Fire impacts on water quality and lake clarity.

**Strategy II. Coordinate with partner organizations to protect water quality, watershed health, and ensure the effective use of public funding.**

1. Participate on the Stormwater Quality Improvement Committee to coordinate stormwater planning and design activities and to fulfill LTRA project prioritization and reporting requirements.

SWQIC meetings were canceled or staff had conflicts and could not participate.

2. Coordinate with the Tahoe Regional Planning Agency to advance Regional Plan goals and Threshold attainment.

Staff TRPA and UNR to advance a proposal to investigate watershed processes contributing to littoral algal greening for consideration to the Lake Tahoe License Plate Grant Program. Staff also participated in discussions to monitor and assess impacts from the Caldor Fire.

3. Participate on grant committees and technical advisory committees as needed.

Staff participated in TRPA SRC monthly Interagency Shoreline Coordination Group.

**Strategy III. Coordinate with agency partners to address nearshore water quality.**

**Milestones:**



1. Coordinate with Nearshore Agency Workgroup agencies to implement the Nearshore Resource Allocation Program.

Staff assisted with drafting a Lake Tahoe License Plate Proposal requesting supplemental funding for the algal monitoring program mentioned in the prior quarterly report.

2. Coordinate TMDL and nearshore program activities and look for opportunities to prioritize implementation actions where multi-benefit objectives may be achieved.

No activity.

## TRUCKEE RIVER BASIN

### Strategy I. Develop Source Water/Watershed Management Plan and get local and EPA Approval.

#### Milestones:

1. Work with local jurisdictions and stakeholders to integrate and complete the SW/WS plan, including the Tributary Plan developed by the TMSWPCC.

The SW/WS Plan was approved by EPA on September 28. There are currently several active subgrants implementing projects in the plan.

See above. This milestone is complete.

2. Present final plan to local boards and commissions for approval. Submit to EPA as a 9-element plan and a Source Water Protection Plan.

### Strategy II. Implement Approved Plan.

#### Milestones:

1. Implement projects and steps delineated in the plan. Fund competitive projects through annual GFO consistent with the plan.

Three projects identified in the plan have been submitted for consideration to the GFO Technical Advisory Committee and two were funded in 2020.

### Strategy III. Coordinate with One Truckee River and OTR Stakeholders to continue implementation of OTR Plan.

#### Milestones:

1. Participate on OTR Board.

NPS Branch Supervisor attended monthly board meetings as a member.

2. Participate in OTR Partnership meetings and events.

The OTR Partnership meeting was attended on October 26th, 2021.

3. Support water quality components of the OTR Plan.

Action plan item under Goal 1 was completed in the SW/WS Based Plan conclusion. Subgrant with OTR funding a restroom attendant and outreach position was overseen. An additional subgrant with OTR to fund a second restroom was executed.

### Strategy IV: Continue and/or build new partnerships to implement NPS related projects.

#### Milestones:

1. Work with current and new partners to identify additional implementation or education projects.

Project Profiles were developed in the creation of the SW/WS Plan, identifying implementation and education projects and partners. BWQP staff has held multiple meeting with key education partners in Las Vegas to develop a larger effort and increase Project WET education in Southern Nevada. Staff also met with Nevada Outdoor School to strategize developing a Project WET program in the Elko area.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Environmental education to reduce NPS pollution was delivered throughout the watershed by Sierra Nevada Journeys' Watershed Education Initiative. Sierra Nevada Journeys educators reached out to partner schools and classrooms to determine how SNJ to meet the needs of the community in response to COVID restrictions. As a result, the Watershed Education Initiative program was adapted to meet the needs of local educators and provided watershed and NPS education to 3,710 students. Great Basin Outdoor School conduct various field days and summer Adventure Day Camps on the Truckee River at the River School Farm and Lake Tahoe. Keep Truckee Meadows Beautiful conducted many youth education camps and teacher trainings as part of their Watershed Warriors program.

## **VIRGIN RIVER BASIN**

**Strategy I. Collaborate with existing and emerging natural resource related local working groups and support efforts that may maintain or improve water quality.**

### **Milestones:**

1. Attend local working group meetings when deemed appropriate, including with the Virgin River Coalition.

Coalition Steering Committee and Working Group members continued to meet to insure Coalition Efforts remain aligned with the 319(h) grant scope of work and coalition mission. A second VRC Bi-Annual Workshop was held October 21, 2021, including a second Virgin River Clean-Up Event. A series of Virgin River watershed related lectures were held in October, 2021 including a lecture to the general public on nonpoint source pollution. A VRC Exhibition was staged in the Mesquite Museum that includes messaging about NPS pollution. Several planning meetings were held with the first Bi-Annual Workshop in 2022 planned to occur in April. For the quarter 14 Outreach Events were conducted, 26 Coordination Meetings were held, and another river clean-up event was attended by 36 volunteers.

2. Provide technical assistance and grant funding to support local working groups.

The Subgrant Agreement with the Nature Conservancy that supports Virgin River Coalition efforts, including support of a Watershed Coordinator, remains open.

3. Identify other resources to facilitate implementation of water quality projects.

The VRC Steering Committee has discussed development of a Financial Plan including the identification of multiple funding sources to maintain the Coalition's viability and to fund implementation projects.

4. Encourage local efforts to adapt watershed plan to cover the 9 required EPA elements.

Several meetings with the Virgin River Coalition, Steering Committee and Working Groups were attended by staff to maintain communication and stress the importance of keeping water quality and NPS pollution management a key component of the Coalition's watershed improvement strategy.

## **WALKER RIVER BASIN**

**Strategy I. Work with local, state, federal and private resources to address nonpoint source pollution in the Walker River Basin.**

**Milestones:**

1. Restore 500 feet of Walker River channel (100 feet per year) to reduce sediment by 20 tons/year and phosphorus by 20 lbs./year.
2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Native vegetation was planted and cottonwoods were propagated by Walker River State Park staff. Invasive weeds were eradicated with spot weed burning and herbicide treatments.

Walker River State Park staff held virtual learning sessions regarding the Walker River.

**Strategy II. Coordinate with Walker River State Park to improve water quality in Walker River watershed.**

**Milestones:**

1. Work with Nevada Division of State Parks and the Walker River Conservancy to implement ecological restoration projects at a park-scale (14,000 acres) at Walker River State Park.
2. NDEP will approach State Parks regarding being a main stakeholder in the development of an alternative restoration plan or watershed based plan. Other stakeholders (Federal, State, Local, Nonprofit, Private and Tribal) will be invited if they are.

Native vegetation was planted and cottonwoods were propagated by Walker River State Park staff. Invasive weeds were eradicated with spot weed burning and herbicide treatments. Project is 50% complete.

NPS staff working on the alternate restoration plan will approach State Parks regarding being a main stakeholder of plan development. The Park Supervisor was promoted and that position is currently vacant.

**Goal #2. Educate and inform the public about nonpoint source pollution, watershed stewardship and water quality protection to increase awareness, promote behavior change and empower effective water quality protection actions.**

**Objective A. Implement high quality, effective NPS Environmental Education Program.**

**Strategy I. Implement Environmental Education Strategic Plan.**

**Milestones:**

1. Develop next five year Environmental Education Strategic Plan.

The educational and outreach position has developed a draft plan to enhance education and outreach for industry professionals, stakeholders, and decision makers regarding NPS pollution with a emphasis on exploring opportunities to increase awareness regarding NPS pollution on agricultural lands. Opportunities to develop a NPS technical workshop series and/or a training program with agency partners is being investigated. In addition, staff is engaged at the state level for educating about soil health as a tool for mitigating erosion and nutrient management. COVID has posed a challenge in selecting the best mechanism for delivery. In addition many potential partners around the state need time to navigate their ability to commit and collaborate on such efforts.

2. Conduct Project WET Workshops for teachers and other community educators.

No workshops took place during this Quarter. The State Project WET Coordinator is developing a training workshop for the NV State Volunteer AmeriCorps Program held at the Rosewood Study Area in April 2022. Multiple Project WET virtual teacher trainings were conducted by Get Outdoors NV and the Clark County School district in Fall. BWQP Staff presented virtually at these workshops.

3. Conduct and/or assist with environmental education events including Earth Day, river snapshot monitoring, green-ups, school environmental science classes, etc.

The Education and Outreach staff presented on NPS and watershed health at various educational events held by the River Wranglers and Great Basin Outdoor School, and BWQP staff presented on macroinvertebrates at the Carson River Snapshot Day event. Staff presented on Soil Erosion as a NPS pollutant at the UNR Extension Soil Health Series.

Newsletter content is being developed for a publication in Feb 2022.

4. Publish Nevada Water Quality News newsletter.

5. Maintain and regularly update Environmental Education web site.

Project WET website is updated every two months and improved as needed. BWQP developed a 319(h) Story Map website.

6. Provide education and training opportunities on water quality topics of concern to watershed partners, stakeholder organizations, and education institutions upon request.

Staff presented on Soil Erosion in Agricultural lands at a virtual workshop hosted by UNR Extension. OTR staff provided presentations to the Northern Nevada Water Planning Commission and the Western Regional Water Commission.

7. Provide high quality EE materials to school and community educators and the public including Project WET curriculum guides, activity booklets, fact sheets, maps and other resources.

Staff has provided education curriculum resources, activities, and online training opportunity announcements upon request and to all members of the Water Education list serv. In addition, staff is developing video training for teaching about erosion control, runoff and soil health for mitigating NPS pollution.

## **Strategy II. Support local or regional environmental education projects.**

### **Milestones:**

Subgrants with Sierra Nevada Journeys, Great Basin Outdoor

1. Invest in environmental education projects that encourage behavior change and citizen involvement in water quality improvement efforts.

School, River Wranglers, Get Outdoors Nevada, CWSD, and SNWA supported environmental education efforts throughout the state. These subgrants were overseen by staff and many adjusted their Scope of Works and budgets due to transitions to distance learning techniques due to COVID. Sierra Nevada Journeys continued implementation of the Watershed Education Initiative which was adapted to meet the needs of local educators. The Initiative inspired students to learn about their local watersheds and non-point source pollution, and empowered them to take care of their local water sources and reached approximately 3,710 students last year.

2. Continue education and training on environmental program effectiveness measurements and standards.

New staff has worked to ensure that all education programs funded in part by the NPS Program will have effective measures and reportable standards that will be reported to EPA.

3. Require appropriate program measurement metrics to determine efficacy of funded education projects.

Appropriate measures were built into the Scope of Works of new education subgrants.

4. Participate with watershed partner programs to support and evaluate.

Evaluations occur at the end of the year and the end of the subgrant.

**Goal #3 Coordinate with State, Federal, local agencies and Tribes to prevent and reduce nonpoint source pollution impacts to surface and groundwater.**

**Objective A. Maintain and improve existing partnerships and build new partnerships with other agencies, nonprofit organizations, local watershed groups and private landowners.**

**Strategy I. Provide opportunities for local, State and Federal agencies, Tribes, environmental organizations, etc. to coordinate and collaborate on NPS related issues.**

**Milestones:**

1. Identify and contact appropriate agencies and stakeholders including BLM, USFS, NRCS, Tribes, NDOW, Nevada Association of Conservation Districts, The Nature Conservancy and others regarding collaboration opportunities.

Staff continues to collaborate and meet with all the partners listed to the left. Meetings were held with BLM, USFS, NRCS, NVaCD, and TNC.

2. Provide technical assistance, education and training to stakeholders on water quality related topics and how to develop project proposals.

Technical assistance was given to several partners. Staff has been assisting CWSD with developing a watershed scale program for educating and implementing agricultural conservation practices, including soil health management systems. Staff has been assisting NVaCD in developing a Soil Health Partnership.

3. Maintain and update contact information to notify agencies of the release of Grant Funding Opportunity for 319 funds.

The NPS GFO Contact List was updated and utilized to notify parties of the 2021 319(h) GFO.

4. Provide opportunity for agencies to participate in triennial review of State water quality standards.

No triennial review this quarter.

**Strategy II. Coordinate with NRCS to implement National Water Quality Initiative and other Farm Bill Programs.**

**Milestones:**

1. Participate in Nevada NRCS State Technical Advisory Committee meetings to encourage the use of Farm Bill funding towards water quality improvement.

Branch Manager attended and co-presented with NRCS staff at the December 20 STAC meeting. The presentation was about the Carson River NWQI project.

2. Meet with NRCS to discuss Farm Bill programs, develop shared watershed priorities and water quality restoration goals and identify project or education opportunities.

Staff met with NRCS and other stakeholders monthly to build the Watershed Assessment for the NWQI watersheds in the Carson Valley.

3. Partner with NRCS to transfer lessons learned from the NWQI to inform future water quality restoration via Farm Bill/EQIP funding.

No work this quarter.

4. Engage NRCS in dialogue about state water quality priorities and watersheds; share maps and other information.

Staff met with NRCS several times strategizing water quality goals in the NWQI watersheds in the Carson Valley.

## **Objective B. Ensure consistency among local, state, federal programs and NDEP Nonpoint Source Pollution Management Plan.**

### **Strategy I. Ensure consistency between federal and state programs.**

#### **Milestones:**

1. Review and comment as determined appropriate on EAs, EISs, Resource Area Management Plans and grazing allotment plans to ensure water quality concerns are addressed.

Staff receives all State Clearinghouse memos via email and reviews the announcement to see if there is comment needed regarding water quality and nonpoint source impacts.

DEP S	Grant #/DIV	Date	Contractor	Project	Amount
*S 19-030-1	DIV 37	03/03/20-6/30/22	Truckee Meadows Regional Planning Agency	Building Spatial Awareness of NPS Pollution in the Truckee Meadows	\$25,002.00
S 19-031	DIV 46/97	4/24/19-12/31/22	Kingsbury GID	Kingsbury GID Street Sweeping Operations	\$155,000.00
*20-014	DIV 46/97	6/20/19-12/31/21	River Wranglers	Carson River Watershed Environmental Education Program	\$114,373.78
20-026	DIV 97	11/22/19-6/30/22	Incline Village General Improvement District	Pilot Project to Reduce Source Water Plastic Pollution at Lake Tahoe	\$61,995.00
*20-027	DIV 97	3/10/20-3/31/22	Washoe County Community Service	Lower Wood Creek Phase 1 Water Quality Improvement Project	\$200,000
*20-056	DIV 97/37	2/19/20-6/30/22	Clark County Water Reclamation District	NPS Pollution Outreach and Education Program	\$62,000
20-058	DIV 37	1/27/20-12/31/23	Carson Water Subconservancy District	Carson River Coalition Watershed Coordination Program	\$237,000.00
<del>20-059</del>	<del>DIV 37</del>	<del>2/6/20-12/31/21</del>	<del>Nevada Tahoe Conservation District</del>	<del>Washoe County Lake Clarity Crediting Program</del>	<del>\$39,220.00</del>
<del>20-062</del>	<del>DIV 37/46</del>	<del>4/28/20-12/31/21</del>	<del>Carson Valley Conservation District</del>	<del>Genoa West Fork Carson River Bank Rehabilitation Phase 1</del>	<del>\$100,000</del>
<del>20-063</del>	<del>DIV 37</del>	<del>2/10/20-12/31/21</del>	<del>Nevada Land Trust</del>	<del>Watershed Management Plan for the Truckee River Watershed</del>	<del>\$99,999.00</del>
20-064	DIV 96/37	2/24/20-12/31/22	The Nature Conservancy	River Fork Ranch Bank Restoration Project	\$30,541.00
20-065	DIV 37	6/4/20-12/31/22	Nevada Division of State Parks	Riparian Restoration at Walker River Recreation Area	\$100,000
<del>20-073</del>	<del>DIV 97</del>	<del>8/5/20-12/31/21</del>	<del>Southern Nevada Water Authority</del>	<del>Initiatives to Reduce NPS Pollution in Southern Nevada 2020</del>	<del>\$39,950.00</del>
21-007	DIV 46/37	7/28/20-12/31/22	Great Basin Outdoor School	Valuing and Protecting our Watershed	\$94,569.00
21-019	DIV 99	2/4/20-12/31/23	Tahoe Regional Planning Agency	BMP Technical Assistance and Lower Kingbury Treatment	\$160,506.00
21-020	DIV 99	2/12/21-12/31/22	The Nature Conservancy	Virgin River Coalition Watershed Coordination	\$41,625.00
21-024	DIV 99	2/9/21-12/31/22	Sierra Nevada Journeys	Watershed Education Initiative	\$70,000.00
21-027	DIV 99	3/31/21-6/30/23	Carson Valley Conservation District	Genoa West Fork Carson River Bank Rehabilitation Phase 2	\$150,000.00
21-029	DIV 99	4/28/21-12/31/22	Washoe Tribe of NV and CA	East Carson River Bank Stabilization and Restoration	\$100,000
21-030	DIV 99	5/19/21-12/31/22	Southern Nevada Water Authority	Initiatives to Reduce NPS Pollution in Southern Nevada 2020	\$67,500.00
21-031	DIV 99/97/46	6/17/21-12/31/23	City of Reno	Chalk Creek Stabilization and Erosion Control at Sapphire Ridge	\$125,000.00
21-033	DIV 99	5/19/21-12/31/22	Douglas County	Westwood Neighborhood & Douglas High School NPS Outreach & LID/BMP	\$28,776.00
22-011	DIV 37	7/28/21-12/31/22	One Truckee River	Public Restroom and Urban River Education	\$119,920.00

\* Grant term extended

Strikethrough indicates subgrant terminated

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**EPA Strategic Plan**

All tasks delineated in this quarterly report support the Environmental Protection Agency's Strategic Goal 1.2 A Cleaner, Healthier Environment and Objective 1.2: Provide for Clean and Safe Water.

**COMPONENTS OF NEVADA'S FFY 2020/SFY 2022 NPS MANAGEMENT PLAN**

**Goal #1: Prevent and reduce nonpoint source pollution in impaired waters and improve watershed health.**

**GENERAL**

**Objective A. Implement NPS Projects in Priority Watersheds and Document Successes.**

**Strategy I. Build and maintain strong partnerships to implement a successful NPS Program statewide.**

**Milestones:**

1. Coordinate with stakeholders in priority watersheds to develop watershed based plans, alternative restoration plans, and to prioritize and/or identify projects to implement.

The 2020 Integrated Source Water and 319(h) Watershed Protection Plan for Public Water Systems and the Truckee River in the Truckee Meadows (Plan) is complete and approved by EPA. The Plan is fully digital, online and has been developed as a GIS planning tool. It is located at [washoecountycleanwater.org](http://washoecountycleanwater.org). Several projects are being partially funded through 319(h) funds under the Plan. Staff built a stakeholder group in the Carson River watershed to translate the existing watershed plan to an online plan like the Truckee's plan. CWSD staff and their contractor, Michael Baker, presented the base of the GIS platform at the March 30th Carson River Forum. This platform will meet many water management and planning needs, including NPS and floodplain modeling and planning. Staff met with Standards staff, NRCS and CWSD monthly to populate a crosswalk for NRCS's Watershed Assessment to open up NRCS NWQI funding for conservation practices in the Carson Valley. Standards staff completed the draft TMDL vision plan for the Carson River. The Assessment is expected to be submitted to NRCS NWQI headwaters next quarter for review. The Virgin River Coalition Watershed Coordinator conducted 23 meetings with the VRC Steering Committee, Recreational and Native Fish Working Groups, and the City of Mesquite towards completion of working group objectives, planning River Clean Up and Workshop Events, and development of an outreach messaging plan. An in-person Coalition Workshop is planned to be held on May 5, 2022. A third meeting was held to strategize an alternative restoration plan for the Walker River watershed, and it was determined the a TMDL Vision and a 9 Element Watershed Plan would both be developed in concert with each other. Staff reached out to the Walker River Conservancy and Nevada State Parks to be the fiduciary agent and champion, respectively. A draft Scope of Work for the Watershed Plan was drawn up for a potential consultant.

2. Manage and oversee subgrants in priority watersheds.

Staff oversaw subgrants to ensure that they were on schedule and on budget. Staff reviewed subgrant quarterly reports and processed invoices and attended coordination meetings. The Grant Funding Opportunity closed on October 15, 2021 and the Committee selected 12 subgrant awards in the total amount of \$791,000. NDEP has entered subgrant with all awardees upon approval and acceptance of Scope of Works and budgets.

**Strategy II. Document and report progressive achievement or success toward environment improvement.**

**Milestones:**

When SOWs were developed, appropriate metrics were included in subgrant



1. Incorporate measurable metrics into scope of works for subgrants.	reporting requirements. Relaxation of COVID restrictions is allowing education subgrants to return to more normal operations, with precautions taken.
2. Report metrics annually in reports to EPA.	Metrics were reported to EPA in the Annual Report, which was submitted on August 30, 2021. Each subgrant was summarized with metrics reported. The next Annual Report will be submitted by September 1, 2022.
3. Develop and publicize at least one success story per year.	A progressive success story was submitted with the Annual Report for SFY 21 describing the efforts and results of Southern Nevada Water Authority's Initiatives to Reduce Nonpoint Source Pollution in Southern Nevada. Upon discussion with EPA, staff will develop a Type 2 success story through GRTS for submission with the SFY 22 Annual Report in September 2022.
4. Evaluate progress of implementation of watershed based plans and/or alternative restoration plans.	The Carson River Adaptive Stewardship plan is being implemented on schedule. The Las Vegas Wash Comprehensive Adaptive Management Plan is being implemented on schedule. The Lake Tahoe TMDL is being implemented on schedule. EPA approved the Source Water/Watershed Plan for the Truckee River and it is being implemented. Work is beginning on both the Carson and the Walker River plans (updates above).

### Strategy III. Provide efficient and effective administration of NPS Program.

#### Milestones:

1. Invest in water quality improvement and environmental education projects that are likely to provide long-term load reductions and changes in behavior to achieve watershed wide improvement in water quality.	
<ul style="list-style-type: none"> <li>a. Release annual Grant Funding Opportunity that clearly specifies program priorities and requirements; review applications; select projects for funding based on established prioritization criteria.</li> <li>b. Ensure selected proponents have sufficient resources, technical skills and commitments to implement and maintain the project for the design life of the project.</li> </ul>	<p>The Grant Funding Opportunity closed on October 15, 2021 and the Committee selected 12 subgrant awards in the total amount of \$791,000. NDEP entered into subgrants with the awardees. The next GFO is expected to be released in late July or early August upon receipt of the FFY22 EPA 319(h) Grant award.</p> <p>All active subgrants were overseen by grant managers.</p>
2. Enter and maintain grant and project information in EPA Grants Reporting and Tracking System within required timeline.	Project data for newly executed Subgrants were entered into the GRTS database. Project Load Reduction data was entered prior to the March 31, 2022 deadline.
3. Report to EPA quarterly to document incremental progress toward achieving annual grant milestones.	This report satisfies this requirement for reporting for 3rd Quarter SFY 22.
4. Report to EPA annually to document progress in achieving SMP and grant milestones including information submitted by outside agencies.	Annual Report for SFY 21 was submitted August 30, 2021. Annual Report for SFY 22 will be submitted by September 1, 2022.

5. Submit to EPA all required financial reports within required timeline.

All financial reports will be submitted.

#### **Strategy IV. Provide Best Management Practice Resources.**

##### **Milestones:**

1. Maintain BMP Toolbox with statewide BMP resources available online.

BMP Resource links provided in the toolbox are periodically reviewed and updated, with new resources added as appropriate. Toolbox can be accessed at <https://ndep.nv.gov/water/rivers-streams-lakes/nonpoint-source-pollution-management-program/best-management-practices-toolbox>. NPS staff begun efforts to rewrite the State Handbook of BMPs, including identification of potential Stakeholders, Working Group and Technical Advisory Group Members. A project completion Gantt Chart has been prepared that projects that completion of the rewrite will take at least 20 months. Staff presented the Handbook Update project to the State Conservation Commission on February 24, 2022, and scheduled a Stakeholder Project Scoping Meeting on April 5, 2022.

2. Provide technical BMP assistance to contractors, local agencies, or property owners as requested.

Technical assistance provided as requested. Staff provided soil conservation and strategic planning assistance to the Nevada Association of Conservation Districts. Staff is developing new technical BMP assistance and soil health consortium for agricultural producers and other groups. Staff presented soil health education to the Carson River Forum on March 29th, 2022. A new working group for Agricultural Practices is being developed with staff and CWSD under the Carson River Coalition. Soil health education staff is meeting with landowners as requested.

#### **Strategy V. Continue Collaboration with Integrated Source Water Protection Program.**

##### **Milestones:**

1. Complete Source Water/Watershed Management (SW/WS) Planning process for the Truckee River Watershed in Washoe County.

EPA approved the plan. Subaward projects under the Plan are being implemented.

2. Assist stakeholders in Washoe County to implement components of the SW/WS Management Plan.

Two projects identified under the plan were submitted under the Grant Funding Opportunity in 2020 and were awarded funds. Subgrants were executed for both projects last quarter. They are the City of Reno Chalk Creek Stabilization and Erosion Control project and the One Truckee River Public Restroom Installation and Urban River Education. These subgrants are continuing in 2022.

3. Identify potential other watersheds/counties to coordinate SW/WS Planning Processes.

Four HUC-12s in the Carson Valley were identified for collaboration between the SW and WS planning processes. Meetings are being held monthly with NRCS, CWSD and Standards staff and the crosswalk to fill the criteria needed for the NRCS Watershed Assessment. The Assessment is 95% complete, with submittal for approval to NRCS NWQI headquarters expected next quarter. Standards staff have developed the draft vision (alternate restoration) plan. It was determined that both a TMDL Vision and a 9 element watershed plan would be developed for the Walker River. Staff is created a crosswalk to determine what the existing Virgin River Watershed Plan needs to be added to become an EPA-approvable plan and then determine how to fill the gaps. The gaps were regarding load reductions.

4. Attend SW or NPS conferences, working group meetings, webinars, etc. to discuss coordinating SW and NPS Programs.

While in-person conferences are still few and far between, many online webinars and other virtual meeting platform opportunities were attended by NPS and SW staff. Many meetings were held with multiple stakeholders. Because most agencies are either still remote working or on a hybrid schedule, staff has started to include some meetings that are both in-person and virtual meetings. Many meetings are still virtual. Staff attended the in-person only Carson River Forum on March 29 and 30th, and presented two talks: one regarding soil health and water quality and another on the status of the NWQI collaborative program.

5. Attend Ground Water Protection Task Force meetings and Western States Source Water conferences to further coordinate SW/NPS Programs.

The Source Water Program Manager at NDEP resigned in October of 2021. That position has remained vacant through this quarter. Coordination with the Bureau of Safe Drinking Water has continued to ensure continued collaboration between the programs into the future. No SW conferences were attended this quarter. Staff sat on the interview panel for the SW Program replacement staff.

#### **Strategy VI. 401 Certification Program.**

##### **Milestones:**

1. Issue 401 certifications for all federally permitted projects to ensure water quality standards are met and NPS issues are addressed.

NDEP 401 Certification actions this quarter include: 23 conditional Certifications, one waiver, and one modification of a previously issued Certification. There are currently 11 projects with active Water Quality Certification Requests. Staff have been regularly communicating and meeting with project applicants, consultants, public employees (city, county, and state), Army Corps of Engineers, and EPA staff to provide guidance and to coordinate the 401 Certification process. Technical assistance regarding appropriate use of BMPs to prevent water quality impairments was provided as needed.

#### **Strategy VII. Update NPS State Management Plan**

##### **Milestones:**

1. Evaluate SMP for update needs based on Integrated Report and discussions with watershed stakeholders.

2. Submit draft revised plan to EPA for review and discussion.

3. Submit final plan to EPA for approval.

No tasks this SFY year. SFY 22 is year two of the 2020-2024 Nevada NPS State Management Plan, which was approved in September, 2020.

#### **CARSON RIVER BASIN**

#### **Strategy I. Implement Carson River Adaptive Stewardship Plan**

##### **Milestones:**

Carson Valley CD is implementing restoration projects on the prioritized reaches

1. Restore 1,250 feet of Carson River channel (250 feet per year) to reduce sediment by 50 tons/year and phosphorus by 50 lbs./year.

of the Carson River. The CVCD has completed construction on three more sites long a 1 mile stretch of the Carson River in Genoa. At site a combination of traditional rip-rap and bioengineering techniques are installed to stabilize the soil, improve water quality and re-establish desirable vegetation for wildlife. Washoe Tribe of Nevada and California: an agricultural fence line was repositioned to accommodate restoration activities (laying back cut banks) after coordination between WT and the Ranch Manager of the adjacent property. A contractor was selected to lay back the cutbanks and a cultural monitor checked the project site for artifacts, marking one historic ditch gate to avoid. Prior to project implementation silt fencing was installed as a BMP to reduce the impacts of runoff from the regraded bank. All work was inspected and approved by the WT Environmental Coordinator. Dayton Valley CD: Roughly 50% of Middle Carson River project sites have received cursory evaluation by DVCD. Dayton Valley Conservation District is developing a prioritization criteria and ranking system to objectively evaluate and prioritize projects for minor repair on the Middle Carson River and is expected to finalize the ranking system likely during the May 2022 Board of Supervisors meeting. Upon Board of Supervisors approval of project priority list, Dayton Valley Conservation District will begin field inspections and evaluation.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Environmental education was performed in the Carson River watershed by CWSD, River Wranglers, TNC River Fork Ranch, and Douglas County Stormwater Program. River Wranglers conducted two Trout in the Classroom (TIC) events with Douglas County and Carson City schools. The TIC events included collaborations with Carson City Parks & Recreation Open Space, Nevada Department of Wildlife, The Nature Conservancy. CWSD continues to market and outreach about the Carson River Watershed through their "I am Carson River" campaign, through social media and videos. Douglas County Stormwater Division has partnered with the Douglas High School, working with multiple classes and teachers to analyze and protect water quality impacted from the school grounds, and to enhance education to homeowners in near by neighborhoods. CWSD conducted their annual Carson River Watershed Forum which included many topics from Water Quality - River Rehabilitation - Climate Environmental Planning and Education - Water Supply, Noxious Weeds - Trails and Recreation, Flood Prevention and Awareness, and soil health. BWQP Staff, Birgit Widegren and Chuck Schembre presented on the NWQI, NRCS Conservation Practices, and the connection between Soil Health and water. Douglas County Stormwater also presented on their active 319h funded project "Westwood Neighborhood and Douglas HS NPS Outreach and LID Project".

3. Implement the CRASP and increase efforts on NDEP's prioritized river segments. Perform geomorphology study on prioritized segments to prioritize restoration projects. Develop a more cohesive strategy for implementation of river restoration projects in coordination with CWSD, DVCD, CVCD, AWG and TNC and develop phased approach.

Efforts are being increased on NDEP's prioritized river segments through the stakeholder group developing the NRCS Watershed Assessment for NWQI, the vision plan and the update of the CRASP. The geomorphology study has been identified as a need and the group is identifying funding sources and scope to implement. The Watershed Assessment will identify necessary projects and conservation practices to implement and will prioritize them. The Watershed Assessment crosswalk is expected to be submitted to NRS NWQI headquarters next quarter.

4. Utilize new technology (drones, etc.) to more effectively plan and monitor results of restoration on the Carson River.	No work this quarter.
5. Coordinate with AWG on their development and implementation of Vision plan for the West Fork of the Carson River segments in CA, and encourage development of a plan for the East Fork of the Carson River.	Carson Water Subconservancy District continues to meet with AWG and USFWS regarding the alternative restoration plan development for the East Fork of the Carson River. New staff was hired at the Lahontan Water Quality Control Board and Standards staff has been coordinating with them regarding the NDEP's Carson River TMDL Vision Plan and Lahontan and AWG's Vision Plan in California.
6. Work with stakeholders to identify and implement additional projects for 319 or other agency funds.	Potential projects were discussed with CVCD, CWSD, Washoe Tribe, DVCD, and others.

#### Strategy II. Implement Carson River Floodplain Management Plan

##### Milestones:

1. Assist in implementation of outreach and education plan to support the CRFMP and increase understanding of the importance of floodplains in maintaining water quality.	Education and Outreach Coordinator attended Carson River Coalition Education Group meetings to coordinate flood awareness week which is coming up in the fall.
2. Support the Living River approach with stakeholders through implementation of projects that release the Carson River to the floodplain.	All currently subgranted projects support the Living River approach, with banks laid back, bioengineering stabilization techniques engaged, and minimal hardscaping of banks to minimize impacts downstream.

#### LAS VEGAS WASH

#### Strategy I. Implement Las Vegas Wash Comprehensive Adaptive Management Plan

##### Milestones:

1. Fund priority projects consistent with CAMP to reduce sediment and other nonpoint source pollutants to the Las Vegas Wash and Lake Mead.	SNWA and CCWRD have open subgrant agreements with BWQP. SNWA received a 2021 Grant Award to continue annual Green-Up Events, Magnet School Field Trips and to begin Project WET Teacher Trainings at the Las Vegas Springs Preserve.
2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.	SNWA and CCWRD continue to conduct education programs utilizing new platforms compatible with Covid 19 restrictions. With Covid restrictions easing, SNWA held their Fall Green-Up Revegetation event which was attended by 101 staff and volunteers, and resulted in the treatment of 9 acres. Three outreach events were attended by CCWRD, while 1146 visits to a Stormwater Program Kiosk were made. The StormWaterLasVegas webpage received 1279 hits. Over 900 calendars produced as part of last October's Stormwater Awareness Month were distributed to Clark County schools. Get Outdoors Nevada entered a 319h subgrant agreement to conduct Project WET teacher training throughout Southern Nevada. They are currently planning their first Project WET Teacher Trainings for Spring and Summer.
3. Conduct site visits to funded projects and to further coordinate efforts with identified stakeholders.	Staff participated in SNWA's Fall Green-Up Event and met with outreach staff to discuss new NPS outreach strategies including teacher trainings to be held at the Las Vegas Springs Preserve.

#### LAKE TAHOE BASIN

#### Strategy I. Manage the Lake Tahoe Total Maximum Daily Load Program to meet the Clarity Challenge of 24 meters by 2026.

## Milestones:

1. Work with Urban Implementing Partners to identify projects and actions to meet load reduction targets and milestones contained in Interlocal Agreements.

Staff worked toward getting two new agreements with KGID and Washoe County. Washoe County will receive \$153k to accomplish Phase II for the Lower Wood Creek project and an agreement with KGID was executed to provide \$160k for the purchase of a new street sweeper to enhance their road operations. Staff reviewed and approved an expanded road registration for Washoe counties. Staff reviewed credit declarations and completed awarding Water Year 2021 credits to urban implementing partners. Staff coordinated with Douglas and Washoe Counties to work through issues related to several registrations involving parcel BMPs that did not meet the expected condition necessary to justify the credit award. In these cases, credit declarations and awards were adjusted to the appropriate number of credits as indicated by re-running the Pollutant Load Reduction Model with parcel BMP implementation percentages for the non-performing land use set to zero. Credit awards for all jurisdictions, including California, were sufficient to meet the ten-year implementation milestone – a significant and noteworthy achievement! Staff received and initiated review of WY2021 Annual Stormwater Reports submitted by urban implementers. Finally, staff coordinated with urban implementing and coordinating partners to schedule and participate in WY2022 Road RAM assessments performed during the quarter.

2. Provide funding and staff support for water quality improvement project implementation and program operations improvement.

Staff participated in meetings and discussions regarding Washoe County's Lower Wood Creek Phase 2 project which includes installation of two water quality basins as initially planned. This could not be completed in phase 1 due to issues securing easements in a timely manner.

3. Collaborate with Lahontan Water Board to execute the annual TMDL Management System cycle; including updating, maintaining and reporting implementation progress for urban and non-urban sources through the Lake Clarity Tracker.

Staff coordinated with Lahontan Water Board to finalize drafts of the 2021 Findings and Program Recommendations Memo and 2022 TMDL Annual Strategy. Stakeholder comments received were addressed in finalization of these documents, which were circulated to and approved by TMDL executives. Staff also crafted draft and final versions of the 2021 Decision Record Memo that received executive approval. Stakeholders were notified final document versions were posted to the Lake Clarity Tracker. Staff coordinated a training meeting with and developed and presented to non-urban implementing partners to assist them with their responsibility to report non-urban performance measures. Non-urban results are a primary component of the annual TMDL Performance Report. Non-urban implementers were also asked for project ideas to highlight in the report.

4. Renew Interlocal Agreements including updated commitments and schedule of load reduction and associated credit targets.

Staff coordinated with Washoe County to deliver the signed, updated interlocal agreement (ILA) for the third TMDL milestone timeframe (2021-2026) to NDEP for signature. The document was signed and executed on January 25. Updated ILAs are now in effect through September 2026.

5. Participate in Tahoe Science Advisory Council meetings to provide TMDL Management Agencies' perspective on key questions, information needs, and workplan development and prioritization.

Staff participated in meetings of the Tahoe Science Advisory Council, including a preliminary meeting of the Data Synthesis and Analysis process that summarizes and seeks to lend insight into the influences on the previous year's annual average clarity value. Clarity levels continued to remain diminished over 2021, continuing the discrepancy with load reduction progress observed in recent years. To commemorate attainment of the ten-year implementation milestone, Program Managers planned to release a more detailed TMDL Performance Report for 2021. Language to explain this discrepancy will need to be carefully crafted.

## **Strategy II. Coordinate with partner organizations to protect water quality, watershed health, and ensure the effective use of public funding.**

1. Participate on the Stormwater Quality Improvement Committee to coordinate stormwater planning and design activities and to fulfill LTRA project prioritization and reporting requirements.

Staff participated in Stormwater Quality Improvement Committee (SWQIC) meetings. Staff helped lead an introduction to the NDEP-funded BMP Performance Evaluation in a Changing Climate project that seeks to: (1) evaluate treatment BMP performance under projected climate using the latest global climate models; and (2) screen and select innovative treatment BMPs that urban implementers are interested in evaluating application feasibility.

2. Coordinate with the Tahoe Regional Planning Agency to advance Regional Plan goals and Threshold attainment.

Staff participated in Tahoe Interagency Executive meetings. In coordination with TRPA, staff also worked with the US Geological Survey to amend an agreement to extend turbidity monitoring on Third and Incline Creeks for an additional year, as well as complete loading estimates of suspended and fine sediments, and nitrogen and phosphorus constituents for the period of record at all Lake Tahoe Interagency Monitoring Program (LTIMP) sites using a newly applied flow-normalized approach that accounts for variations in annual precipitation. An USGS Open File Report will be created to document the methodology for future use and to annually report flow-normalized loads and concentrations at each site. Because the approach will allow for better trend detection in loads and concentrations of constituents entering Lake Tahoe, the data derived from this project is believed to be an important component for the Tahoe Science Advisory Council's Data Synthesis and Analysis process which seeks to interpret the primary influences on annual and historic lake clarity values.

3. Participate on grant committees and technical advisory committees as needed.

Staff participated in the Lake Tahoe License Plate Grant Technical Advisory Committee providing feedback on priority proposals recommended to receive grant funding. Staff discussed with BWQP Chief the need and secured \$40k match funding for a high priority proposal submitted by TRPA to retool the nearshore algal monitoring program.

## **Strategy III. Coordinate with agency partners to address nearshore water quality.**

**Milestones:**

1. Coordinate with Nearshore Agency Workgroup agencies to implement the Nearshore Resource Allocation Program.

2. Coordinate TMDL and nearshore program activities and look for opportunities to prioritize implementation actions where multi-benefit objectives may be achieved.

Staff participated in meetings of the Nearshore Agency Work Group (NAWG). Primary purpose of the meeting was to discuss review comments regarding a draft report summarizing results and findings from a nearshore human health assessment of fecal indicator bacteria. Formulating appropriate comments necessitated staff to meet with BWQP Monitoring Branch Supervisor to better understand the rationale and purpose of standards existing in Nevada Administrative Code.

No activity.

## TRUCKEE RIVER BASIN

### Strategy I. Develop Source Water/Watershed Management Plan and get local and EPA Approval.

Milestones:

The SW/WS Plan was approved by EPA. There are currently several active subgrants implementing projects in the plan.

1. Work with local jurisdictions and stakeholders to integrate and complete the SW/WS plan, including the Tributary Plan developed by the TMSWPCC.

See above. This milestone is complete.

2. Present final plan to local boards and commissions for approval. Submit to EPA as a 9-element plan and a Source Water Protection Plan.

### Strategy II. Implement Approved Plan.

Milestones:

1. Implement projects and steps delineated in the plan. Fund competitive projects through annual GFO consistent with the plan.

Three projects identified in the plan have been submitted for consideration to the GFO Technical Advisory Committee and two were funded in 2020.

### Strategy III. Coordinate with One Truckee River and OTR Stakeholders to continue implementation of OTR Plan.

Milestones:

1. Participate on OTR Board.

NPS Branch Supervisor attended monthly board meetings as a member.

2. Participate in OTR Partnership meetings and events.

The OTR Partnership meeting was attended on January 24, 2022.

3. Support water quality components of the OTR Plan.

Action plan item under Goal 1 was completed in the SW/WS Based Plan conclusion. Subgrant with OTR funding a restroom attendant and outreach position was overseen. An additional subgrant with OTR to fund a second restroom was executed.

### Strategy IV: Continue and/or build new partnerships to implement NPS related projects.

Milestones:

Project Profiles were developed in the creation of the SW/WS Plan, identifying



1. Work with current and new partners to identify additional implementation or education projects.

implementation and education projects and partners. Truckee Meadows Parks Foundation has surveyed sites for current percent cover of native vs invasive species within the Rosewood Nature Study Area project and areas have been selected for spring planting along riparian corridors. Planting areas have been established and mapped in ArcGIS. Photos will be taken on planting zones prior to planting and continue quarterly after planting. TMPF will complete an additional assessment before the fall planting in 2022. TMPF has ordered a variety of ecologically appropriate plants from Washoe State Nursery for spring planting. Ordered plants include grasses (great basin wildrye, creeping wildrye, etc.), forbs (penstemon, flax, etc.), shrubs (wild rose, golden currant, etc.), and trees (chokecherry and yellow willow). Areas within the wetland with the required habitat for each plant to thrive have been identified, and plants have been grouped to be placed in those areas. TMPF also has a wetland seed mix acquired from Comstock Seed that will be broadcast along wet meadow and riparian areas in addition to the planted vegetation to increase stabilization. TMPF has so far treated 45 acres on the Rosewood property since January 2022. TMPF has planted 275 Coyote Willow (*Salix exigua*) along the riparian areas of the former driving range, totaling 301 linear feet. TMPF has planned the spring planting event for April 23, 2022. Volunteers will help plant the hundreds of ecologically appropriate species purchased from Washoe State Nursery.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Environmental education to reduce NPS pollution was delivered throughout the watershed by Sierra Nevada Journeys' Watershed Education Initiative. Sierra Nevada Journeys delivered hands-on watershed and outdoor STEM education programs to 524 1st-5th grade students in 20 different northern Nevada classrooms between January and March; Students benefitted from newly revised, culturally relevant and inclusive curriculum. Teachers reported that the experience was “engaging throughout,” “all instructors were amazing” and that it was an “awesome opportunity for kids!” Great Basin Outdoor School conduct various field days and summer Adventure Day Camps on the Truckee River at the River School Farm and Lake Tahoe. Keep Truckee Meadows Beautiful conducted many youth education camps and teacher trainings as part of their Watershed Warriors program.

## VIRGIN RIVER BASIN

**Strategy I. Collaborate with existing and emerging natural resource related local working groups and support efforts that may maintain or improve water quality.**

### Milestones:

1. Attend local working group meetings when deemed appropriate, including with the Virgin River Coalition.

Coalition Steering Committee and Working Group members continued to meet to ensure Coalition Efforts remain aligned with the 319(h) grant scope of work and coalition mission. Several planning meetings were held with the first Bi-Annual Workshop in 2022 planned to occur on May 5. For the quarter one Outreach Event was conducted, and 23 Coordination Meetings were held. Nonprofit status continued to be pursued with a Board of Directors selected, and Articles of Incorporation submitted to the Secretary of State.

2. Provide technical assistance and grant funding to support local working groups.

The Subgrant Agreement with the Nature Conservancy that supports Virgin River Coalition efforts, including support of a Watershed Coordinator, remains open.

3. Identify other resources to facilitate implementation of water quality projects.

The VRC Steering Committee has discussed development of a Financial Plan including the identification of multiple funding sources to maintain the Coalition's viability and to fund implementation projects.

4. Encourage local efforts to adapt watershed plan to cover the 9 required EPA elements.

Several meetings with the Virgin River Coalition, Steering Committee and Working Groups were attended by staff to maintain communication and stress the importance of keeping water quality and NPS pollution management a key component of the Coalition's watershed improvement strategy.

## **WALKER RIVER BASIN**

### **Strategy I. Work with local, state, federal and private resources to address nonpoint source pollution in the Walker River Basin.**

#### **Milestones:**

1. Restore 500 feet of Walker River channel (100 feet per year) to reduce sediment by 20 tons/year and phosphorus by 20 lbs./year.
2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Native vegetation was planted and cottonwoods were propagated by Walker River State Park staff. Invasive weeds were eradicated with spot weed burning and herbicide treatments.

Walker River State Park staff held virtual learning sessions regarding the Walker River.

### **Strategy II. Coordinate with Walker River State Park to improve water quality in Walker River watershed.**

#### **Milestones:**

1. Work with Nevada Division of State Parks and the Walker River Conservancy to implement ecological restoration projects at a park-scale (14,000 acres) at Walker River State Park.
2. NDEP will approach State Parks regarding being a main stakeholder in the development of an alternative restoration plan or watershed based plan. Other stakeholders (Federal, State, Local, Nonprofit, Private and Tribal) will be invited if they are.

Native vegetation was planted and cottonwoods were propagated by Walker River State Park staff. Invasive weeds were eradicated with spot weed burning and herbicide treatments. Project is 75% complete.

NPS staff has decided to develop both a TMDL Vision and a 9-element Watershed Plan for the East Walker River from outlet of the Bridgeport Reservoir at the California/Nevada stateline. Walker River Conservancy and Nevada State Parks have been approached to serve as fiduciary agent and champion respectively. Other stakeholders are being identified and a draft Scope of Work for a consultant has been drawn up.

## **Goal #2. Educate and inform the public about nonpoint source pollution, watershed stewardship and water quality protection to increase awareness, promote behavior change and empower effective water quality protection actions.**

### **Objective A. Implement high quality, effective NPS Environmental Education Program.**

#### **Strategy I. Implement Environmental Education Strategic Plan.**

#### **Milestones:**

1. Develop next five year Environmental Education Strategic Plan.

The educational and outreach position has developed a draft plan to enhance education and outreach for industry professionals, stakeholders, and decision makers regarding NPS pollution with a emphasis on exploring opportunities to increase awareness regarding NPS pollution on agricultural lands. Opportunities to develop a NPS technical workshop series and/or a training program with agency partners is being investigated. In addition, staff is engaged at the state level for educating about soil health as a tool for mitigating erosion and nutrient management. Project WET Teacher training gaps throughout the State are being identified and fulfilled.

2. Conduct Project WET Workshops for teachers and other community educators.

No workshops took place during this Quarter. The State Project WET Coordinator is developing a training workshop for the NV State Volunteer AmeriCorps Program held at the Rosewood Nature Study Area April 12-13 2022. The workshop is a collaboration between the NV Division of Wildlife, Truckee Meadows Park Foundation, Project WILD and AmeriCorps. Get Out Doors Nevada is planning Spring Project WET workshops.

3. Conduct and/or assist with environmental education events including Earth Day, river snapshot monitoring, green-ups, school environmental science classes, etc.

Great Basin Outdoor School conducted a series of winter snowshoe field trips to education school groups about the importance of Sierra Snowpack for our high desert water resources.

4. Publish Nevada Water Quality News newsletter.

The Winter/Spring issue of Nevada Quality News was issued on March 16th. The link is: <https://conta.cc/3tWQdP6>

5. Maintain and regularly update Environmental Education web site.

Project WET website is updated every two months and improved as needed. BWQP developed a 319(h) Story Map website.

6. Provide education and training opportunities on water quality topics of concern to watershed partners, stakeholder organizations, and education institutions upon request.

BWQP conducted a presentation at the Carson River Watershed Forum regarding soil health and the connection to water quality. The presentation included educating about the process of soil degradation and important soil properties for improving soil services to watershed health. The Education position, who serves on the South Western Cover Crop Council, presented at the Council's annual meeting regarding cover crops as a tool to mitigate erosion and NPS on agricultural lands.

7. Provide high quality EE materials to school and community educators and the public including Project WET curriculum guides, activity booklets, fact sheets, maps and other resources.

Staff has provided education curriculum resources, activities, and online training opportunity announcements upon request and to all members of the Water Education list serv. In addition, staff is developing video training for teaching about erosion control, runoff and soil health for mitigating NPS pollution.

## **Strategy II. Support local or regional environmental education projects.**

### **Milestones:**

1. Invest in environmental education projects that encourage behavior change and citizen involvement in water quality improvement efforts.

Subgrants with Sierra Nevada Journeys, Great Basin Outdoor School, River Wranglers, Get Outdoors Nevada, CWSD, CCWRD and SNWA supported environmental education efforts throughout the state. Sierra Nevada Journeys delivered hands-on watershed and outdoor STEM education programs to 524 1st-5th grade students in 20 different northern Nevada classrooms this quarter.

2. Continue education and training on environmental program effectiveness measurements and standards.

New staff has worked to ensure that all education programs funded in part by the NPS Program will have effective measures and reportable standards that will be reported to EPA.

3. Require appropriate program measurement metrics to determine efficacy of funded education projects.

Appropriate measures were built into the Scope of Works of new education subgrants.

4. Participate with watershed partner programs to support and evaluate.

Evaluations occur at the end of the year and the end of the subgrant.

## **Goal #3 Coordinate with State, Federal, local agencies and Tribes to prevent and reduce nonpoint source pollution impacts to surface and groundwater.**

**Objective A. Maintain and improve existing partnerships and build new partnerships with other agencies, nonprofit organizations, local watershed groups and private landowners.**

**Strategy I. Provide opportunities for local, State and Federal agencies, Tribes, environmental organizations, etc. to coordinate and collaborate on NPS related issues.**

**Milestones:**

- |   |   |
|---|---|
| 1. Identify and contact appropriate agencies and stakeholders including BLM, USFS, NRCS, Tribes, NDOW, Nevada Association of Conservation Districts, The Nature Conservancy and others regarding collaboration opportunities. | Staff continues to collaborate and meet with all the partners listed to the left. Meetings were held with BLM, USFS, NRCS, NVaCD, and TNC.  |
| 2. Provide technical assistance, education and training to stakeholders on water quality related topics and how to develop project proposals.   | Technical assistance was given to several partners. Staff has been assisting CWSD with developing a watershed scale program for educating and implementing agricultural conservation practices, including soil health management systems. Staff has been assisting NVaCD in developing a Soil Health Partnership. |
| 3. Maintain and update contact information to notify agencies of the release of Grant Funding Opportunity for 319 funds.  | The NPS GFO Contact List was updated and utilized to notify parties of the 2021 319(h) GFO. The Contact List will be updated next quarter for the 2022 319(h) GFO release.  |
| 4. Provide opportunity for agencies to participate in triennial review of State water quality standards.  | No triennial review this quarter.   |

**Strategy II. Coordinate with NRCS to implement National Water Quality Initiative and other Farm Bill Programs.**

**Milestones:**

- |   |   |
|---|---|
| 1. Participate in Nevada NRCS State Technical Advisory Committee meetings to encourage the use of Farm Bill funding towards water quality improvement.                    | Branch Manager attended and co-presented with NRCS staff at the December 20 STAC meeting. The presentation was about the Carson River NWQI project. |
| 2. Meet with NRCS to discuss Farm Bill programs, develop shared watershed priorities and water quality restoration goals and identify project or education opportunities. | Staff met with NRCS and other stakeholders monthly to build the Watershed Assessment for the NWQI watersheds in the Carson Valley.                  |
| 3. Partner with NRCS to transfer lessons learned from the NWQI to inform future water quality restoration via Farm Bill/EQIP funding.                                     | No work this quarter.   |
| 4. Engage NRCS in dialogue about state water quality priorities and watersheds; share maps and other information.   | Staff met with NRCS several times strategizing water quality goals in the NWQI watersheds in the Carson Valley.                                     |

**Objective B. Ensure consistency among local, state, federal programs and NDEP Nonpoint Source Pollution Management Plan.**

**Strategy I. Ensure consistency between federal and state programs.**

**Milestones:**

- |  |   |
|--|---|
| 1. Review and comment as determined appropriate on EAs, EISs, Resource Area Management Plans and grazing allotment plans to ensure water quality concerns are addressed. | Staff receives all State Clearinghouse memos via email and reviews the announcement to see if there is comment needed regarded water quality and nonpoint source impacts. |
|--|---|

DEP S	Grant #/DIV	Date	Contractor	Project	Amount
*S 19-030-1	DIV 37	03/03/20-6/30/22	Truckee Meadows Regional Planning Agency	Building Spatial Awareness of NPS Pollution in the Truckee Meadows	\$25,002.00
<del>S 19-031</del>	<del>DIV 46/92</del>	<del>4/24/19-12/31/22</del>	<del>Kingsbury GID</del>	<del>Kingsbury GID Street Sweeping Operations</del>	<del>\$155,000.00</del>
<del>*20-014</del>	<del>DIV 46/92</del>	<del>6/20/19-12/31/21</del>	<del>River Wranglers</del>	<del>Carson River Watershed Environmental Education Program</del>	<del>\$114,373.78</del>
20-026	DIV 97	11/22/19-6/30/22	Incline Village General Improvement District	Pilot Project to Reduce Source Water Plastic Pollution at Lake Tahoe	\$61,995.00
*20-027	DIV 97	3/10/20-3/31/22	Washoe County Community Service	Lower Wood Creek Phase 1 Water Quality Improvement Project	\$200,000
*20-056	DIV 97/37	2/19/20-6/30/22	Clark County Water Reclamation District	NPS Pollution Outreach and Education Program	\$62,000
20-058	DIV 37	1/27/20-12/31/23	Carson Water Subconservancy District	Carson River Coalition Watershed Coordination Program	\$237,000.00
<del>20-059</del>	<del>DIV 37</del>	<del>2/6/20-12/31/21</del>	<del>Nevada Tahoe Conservation District</del>	<del>Washoe County Lake Clarity Crediting Program</del>	<del>\$39,229.92</del>
<del>20-062</del>	<del>DIV 37/46</del>	<del>4/28/20-12/31/21</del>	<del>Carson Valley Conservation District</del>	<del>Genoa West Fork Carson River Bank Rehabilitation Phase 1</del>	<del>\$109,090</del>
<del>20-063</del>	<del>DIV 37</del>	<del>3/10/20-12/31/21</del>	<del>Nevada Land Trust</del>	<del>Watershed Management Plan for the Truckee River Watershed</del>	<del>\$99,998.00</del>
20-064	DIV 96/37	2/24/20-12/31/22	The Nature Conservancy	River Fork Ranch Bank Restoration Project	\$30,541.00
20-065	DIV 37	6/4/20-12/31/22	Nevada Division of State Parks	Riparian Restoration at Walker River Recreation Area	\$100,000
<del>20-073</del>	<del>DIV 92</del>	<del>8/5/20-12/31/21</del>	<del>Southern Nevada Water Authority</del>	<del>Initiatives to Reduce NPS Pollution in Southern Nevada 2020</del>	<del>\$39,950.00</del>
21-007	DIV 46/37	7/28/20-12/31/22	Great Basin Outdoor School	Valuing and Protecting our Watershed	\$94,569.00
21-019	DIV 99	2/4/20-12/31/23	Tahoe Regional Planning Agency	BMP Technical Assistance and Lower Kingsbury Treatment	\$160,506.00
21-020	DIV 99	2/12/21-12/31/22	The Nature Conservancy	Virgin River Coalition Watershed Coordination	\$41,625.00
<del>21-024</del>	<del>DIV 99</del>	<del>2/9/21-12/31/22</del>	<del>Sierra Nevada Journeys</del>	<del>Watershed Education Initiative</del>	<del>\$70,000.00</del>
21-027	DIV 99	3/31/21-6/30/23	Carson Valley Conservation District	Genoa West Fork Carson River Bank Rehabilitation Phase 2	\$150,000.00
21-029	DIV 99	4/28/21-12/31/22	Washoe Tribe of NV and CA	East Carson River Bank Stabilization and Restoration	\$100,000
21-030	DIV 99	5/19/21-12/31/22	Southern Nevada Water Authority	Initiatives to Reduce NPS Pollution in Southern Nevada 2020	\$67,500.00
21-031	<del>DIV 99/97/46</del>	<del>6/17/21-12/31/23</del>	<del>City of Reno</del>	<del>Chalk Creek Stabilization and Erosion Control at Sapphire Ridge</del>	<del>\$125,000.00</del>
21-033	DIV 99	5/19/21-12/31/22	Douglas County	Westwood Neighborhood & Douglas High School NPS Outreach & LID/BMP Implementation	\$28,776.00
22-011	DIV 37	7/28/21-12/31/22	One Truckee River	Public Restroom and Urban River Education	\$119,920.00
22-019	DIV 99	10/18/21-6/30/23	Dayton Valley Conservation District	Evaluation and Prioritization of MCR Projects	\$50,000.00
22-024	DIV 99	11/8/21-6/30/23	River Wranglers	Carson River Watershed Environmental Education Program	\$85,827.50
22-028	DIV 56	12/41/21-12/31/23	Nevada Tahoe Conservation District	Washoe County Lake Clarity Crediting Program	\$44,393.00
22-030	DIV 56	2/23/22-12/31/24	Kingsbury GID	Street Sweeping Operations	\$160,000.00
22-031	DIV 56	2/1/22-12/31/23	Mason Valley Conservation District	Blanchard Bank Restoration	\$86,000.00
22-032	DIV 37	1/31/22-12/31/22	Nevada Outdoor School	Watershed Heroes 2022	\$10,418.00
22-035	DIV 56	1/12/22-12/31/22	Sierra Nevada Journeys	Watershed Education Initiative	\$73,143.00
22-036	DIV 56	2/1/22-6/30/22	Get Outdoors Nevada	5 NV Water Education Resource Training Hub	\$32,665.50
22-037	DIV 56	1/28/22-6/30/23	Keep Truckee Meadows Beautiful	Nonpoint Source Education Outreach and Action	\$20,814.00
22-039	DIV 56	2/16/22-12/31/22	Truckee Meadows Parks Foundation	Rosewood Nature Study Area Phase 2	\$56,000.00
22-041	DIV 57	3/8/22-6/30/23	Carson Water Subconservancy District	Carson River Coalition Watershed Coordination Program	\$137,685.00

\* Grant term extended

Strikethrough indicates subgrant terminated

**State Fiscal Year 2022 4th Quarterly Report**  
**April 1, 2022 - June 30, 2022**  
**319(h) Grant #C9-97908121**

**EPA Strategic Plan**

All tasks delineated in this quarterly report support the Environmental Protection Agency's Strategic Goal 1.2 A Cleaner, Healthier Environment and Objective 1.2: Provide for Clean and Safe Water.

**COMPONENTS OF NEVADA'S FFY 2020/SFY 2022 NPS MANAGEMENT PLAN**

**Goal #1: Prevent and reduce nonpoint source pollution in impaired waters and improve watershed health.**

**GENERAL**

**Objective A. Implement NPS Projects in Priority Watersheds and Document Successes.**

**Strategy I. Build and maintain strong partnerships to implement a successful NPS Program statewide.**

Milestones:	
1. Coordinate with stakeholders in priority watersheds to develop watershed based plans, alternative restoration plans, and to prioritize and/or identify projects to implement.	The Truckee River Watershed Plan continues to be supported with 319(h) funds, including development of restrooms to accommodate unsheltered persons and outreach efforts. Staff met with Standards staff, NRCS and CWSD to continue work on NRCS's Watershed Assessment to open up NRCS NWQI funding for conservation practices in the Carson Valley. The Virgin River Coalition Watershed Coordinator conducted 23 meetings with the VRC Steering Committee, Recreational and Native Fish Working Groups, and the City of Mesquite towards completion of working group objectives, planning River Clean Ups and Workshop Events, and development of the VRC Public Engagement Plan. An in-person Coalition Workshop was held on May 5, 2022, with 41 participants attending. Additional meetings were held to strategize an alternative restoration plan for the Walker River watershed that will include a TMDL Vision and a 9 Element Watershed Plan for the river. Staff reached out to the Walker River Conservancy and Nevada State Parks to be the fiduciary agent and champion, respectively. A draft Scope of Work for the Watershed Plan was drawn up for a potential consultant.
2. Manage and oversee subgrants in priority watersheds.	When SOWs were developed, appropriate metrics were included in subgrant reporting requirements.

**Strategy II. Document and report progressive achievement or success toward environment improvement.**

Milestones:	
1. Incorporate measurable metrics into scope of works for subgrants.	When SOWs were developed, appropriate metrics were included in subgrant reporting requirements. Relaxation of COVID restrictions is allowing education subgrants to return to more normal operations, with precautions taken.
2. Report metrics annually in reports to EPA.	Metrics were previously reported to EPA in the 2021 Annual Report. The next Annual Report will be submitted by September 1, 2022.
3. Develop and publicize at least one success story per year.	A progressive success story was submitted with the Annual Report for SFY 21 describing the efforts and results of Southern Nevada Water Authority's Initiatives to Reduce Nonpoint Source Pollution in Southern Nevada. Upon discussion with EPA, staff will develop a Type 2 success story through GRTS for submission with the SFY 22 Annual Report in September 2022.
4. Evaluate progress of implementation of watershed based plans and/or alternative restoration plans.	Watershed Based Plans are being implemented on schedule, including the Las Vegas Wash Comprehensive Adaptive Management Plan, the Lake Tahoe TMDL Implementation Plan, the Carson River Adaptive Stewardship Plan (which is currently being updated), and the Truckee River Watershed Plan. Work is currently taking place to develop the Walker River Watershed Plan, and to update the Lower Virgin River Watershed Plan.

**Strategy III. Provide efficient and effective administration of NPS Program.**

Milestones:	
1. Invest in water quality improvement and environmental education projects that are likely to provide long-term load reductions and changes in behavior to achieve watershed wide improvement in water quality.	
a. Release annual Grant Funding Opportunity that clearly specifies program priorities and requirements; review applications; select projects for funding based on established prioritization criteria.	Upon receipt of the FFY22 EPA 319(h) Grant award, an updated Grant Funding Opportunity will be released, potentially in early August, 2022. If released in August, grant awards are projected to be let in late September, 2022.

Related URL Links:



Truckee River Plan

Annual Report

LV Wash CAMP

Lake Tahoe TMDL

CRASP

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>b. Ensure selected proponents have sufficient resources, technical skills and commitments to implement and maintain the project for the design life of the project.</li> </ul> | <p>All active subgrants are overseen by grant managers to insure deliverables described in project Scopes of Work are completed and that project final reports are submitted.</p> |
| <p>2. Enter and maintain grant and project information in EPA Grants Reporting and Tracking System within required timeline.</p>  | <p>Project data for newly executed Subgrants were entered into the GRTS database.</p>   |
| <p>3. Report to EPA quarterly to document incremental progress toward achieving annual grant milestones.</p>  | <p>This report satisfies this requirement for reporting for 4th Quarter SFY 22.</p>   |
| <p>4. Report to EPA annually to document progress in achieving SMP and grant milestones including information submitted by outside agencies.</p>  | <p>Annual Report for SFY 21 was submitted August 30, 2021. Annual Report for SFY 22 will be submitted by September 1, 2022.</p>   |
| <p>5. Submit to EPA all required financial reports within required timeline.</p>  | <p>All financial reports will be submitted.</p>   |

#### Strategy IV. Provide Best Management Practice Resources.

##### Milestones:

1. Maintain BMP Toolbox with statewide BMP resources available online.

BMP Resource links provided in the toolbox are periodically reviewed and updated, with new resources added as appropriate. Toolbox can be accessed at <https://ndep.nv.gov/water/rivers-streams-lakes/nonpoint-source-pollution-management-program/best-management-practices-toolbox>. NPS staff begun efforts to rewrite the State Handbook of BMPs, including identification of potential Stakeholders, Working Group and Technical Advisory Group Members. Staff held a meeting with the BMP Handbook TAG on June 9, 2022. Information was solicited from the TAG, with TAG input requested to be submitted during the July - September quarter. Staff presented the Handbook Update project to the State Environmental Commission on June 15, 2022. The next Stakeholder Project Scoping Meeting is tentatively scheduled for September 15, 2022.

2. Provide technical BMP assistance to contractors, local agencies, or property owners as requested.

Technical assistance provided as requested. Staff provided soil conservation and strategic planning assistance to the Nevada Association of Conservation Districts. Staff is developing new technical BMP assistance and soil health consortium for agricultural producers and other groups. A new working group for Agricultural Practices is being developed with staff and CWSD under the Carson River Coalition. Soil health education staff is meeting with landowners as requested. Staff provided assistance to Lincoln County CD and Extension of conducting soil health and NPS education to the public.

#### Strategy V. Continue Collaboration with Integrated Source Water Protection Program.

##### Milestones:

1. Complete Source Water/Watershed Management (SW/WS) Planning process for the Truckee River Watershed in Washoe County.

EPA approved the Plan. Subaward projects under the Plan are being implemented.

2. Assist stakeholders in Washoe County to implement components of the SW/WS Management Plan.

Two projects identified under the plan were submitted under the Grant Funding Opportunity in 2020 and were awarded funds. Subgrants were executed for both projects last quarter. They are the City of Reno Chalk Creek Stabilization and Erosion Control project and the One Truckee River Public Restroom Installation and Urban River Education. These subgrants are continuing in 2022.

3. Identify potential other watersheds/counties to coordinate SW/WS Planning Processes.

Four HUC-12s in the Carson Valley were identified for collaboration between the SW and WS planning processes. Meetings are being held monthly with NRCS, CWSD and Standards staff and the crosswalk to fill the criteria needed for the NRCS Watershed Assessment. The Assessment is 95% complete, with submittal for approval to NRCS NWQI headquarters expected next quarter. Standards staff have developed the draft vision (alternate restoration) plan. It was determined that both a TMDL Vision and a 9 element watershed plan would be developed for the Walker River. Staff is created a crosswalk to determine what the existing Virgin River Watershed Plan needs to be added to become an EPA-approvable plan and then determine how to fill the gaps. The gaps were regarding load reductions.

4. Attend SW or NPS conferences, working group meetings, webinars, etc. to discuss coordinating SW and NPS Programs.

Although numerous webinars and working group meetings were attended by staff during the quarter, no meetings were held to specifically discuss SW/NPS coordination. Note that the Bureau of Safe Drinking Water Source Water Program Manager, and BWQP NPS Branch Supervisor positions remain vacant.



5. Attend Ground Water Protection Task Force meetings and Western States Source Water conferences to further coordinate SW/NPS Programs.

No SW conferences were attended this quarter.

#### Strategy VI. 401 Certification Program.

##### Milestones:

1. Issue 401 certifications for all federally permitted projects to ensure water quality standards are met and NPS issues are addressed.

NDEP 401 Certification actions this quarter include: 9 conditional Certifications and one waiver. There are currently 10 projects with active Water Quality Certification Requests and 17 projects in the Pre-Filing Meeting step. Staff presented on the 401 Certification process at an Environmental Permitting Workshop hosted by Clark County Regional Flood Control District on 5/25/2022. The NDEP 401 Certification webpage has been updated to reflect the changes to the Certification process resulting from the Supreme Court decision issued on April 6, 2022. Staff have been regularly communicating and meeting with project applicants, consultants, public employees (city, county, and state), Army Corps of Engineers, and EPA staff to provide guidance and to coordinate the 401 Certification process. Technical assistance regarding appropriate use of BMPs to prevent water quality impairments was provided as needed.

NV 401 Program

#### Strategy VII. Update NPS State Management Plan

##### Milestones:

1. Evaluate SMP for update needs based on Integrated Report and discussions with watershed stakeholders.

2. Submit draft revised plan to EPA for review and discussion.

3. Submit final plan to EPA for approval.

No tasks this SFY year. SFY 22 is year two of the 2020-2024 Nevada NPS State Management Plan, which was approved in September, 2020.

#### CARSON RIVER BASIN

##### Strategy I. Implement Carson River Adaptive Stewardship Plan

##### Milestones:

1. Restore 1,250 feet of Carson River channel (250 feet per year) to reduce sediment by 50 tons/year and phosphorus by 50 lbs./year.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

The Carson Valley CD completed the Genoa West Fork Bank Stabilization project, with a total of 2,550 ft of restored eroded stream bank. The project include restoration at 4 sites. BMP's utilized between all 4 sites include: willow poles, willow revetment, willow mats, log viens bars serving as sediment traps and energy dissipation, reshaping river banks to a 2.5-3 to 1 slope, and installation of COIR erosion matting. A total of 30,331 willow were planted. Project load reduction estimates: Sediment - 351 tons/yr; Phosphorus - 351 lbs/yr; Nitrogen - 702 lbs/yr. Washoe Tribe of Nevada and California: The Washoe Tribe installed all plant stock, including 900 trees and shrubs along the contour of the newly sloped bank, and has broadcasted seeds of rhizomatous grasses, rushes, forbs, and sedges. Erosion control matting was also installed to temporarily stabilize sloped banks. Dayton Valley CD: The Dayton Valley Conservation District's Board of Supervisors approved a list of ranking criteria to allow for field surveys to be completed in July and August 2022. Approximately 50% of the Middle Carson River project sites have been preliminarily inspected.

Environmental education was performed in the Carson River watershed by CWSD, River Wranglers, TNC River Fork Ranch, and Douglas County Stormwater Program. CWSD continues to market and outreach about the Carson River Watershed through their "I am Carson River" campaign, through social media and videos. Douglas County Stormwater Division has partnered with the Douglas High School, working with multiple classes and teachers to analyze and protect water quality impacted from the school grounds, and to enhance education to homeowners in near by neighborhoods. An English and Geo class completed a storm drain marking project in the Westwood neighborhood. River Wranglers conducted Conserve the Carson River workdays with multiple schools at multiple locations throughout the Carson River Watershed. Students were educated on NPS issues, watershed stewardship, macroinvertebrate ID, flora and fauna of the watershed, including Project WET activities. River Wranglers reported 1637 students participated in their EE events during the quarter.



3. Implement the CRASP and increase efforts on NDEP's prioritized river segments. Perform geomorphology study on prioritized segments to prioritize restoration projects. Develop a more cohesive strategy for implementation of river restoration projects in coordination with CWSD, DVCD, CVCD, AWG and TNC and develop phased approach.

Efforts are being increased on NDEP's prioritized river segments through the stakeholder group developing the NRCS Watershed Assessment for NWQI, the vision plan and the update of the CRASP. The geomorphology study has been identified as a need and the group is identifying funding sources and scope to implement. The Watershed Assessment will identify necessary projects and conservation practices to implement and will prioritize them. The Watershed Assessment crosswalk was submitted to NRS NWQI headquarters.

4. Utilize new technology (drones, etc.) to more effectively plan and monitor results of restoration on the Carson River.

No work this quarter.

5. Coordinate with AWG on their development and implementation of Vision plan for the West Fork of the Carson River segments in CA, and encourage development of a plan for the East Fork of the Carson River.

Carson Water Subconservancy District continues to meet with AWG and USFWS regarding the alternative restoration plan development for the East Fork of the Carson River. New staff was hired at the Lahontan Water Quality Control Board and Standards staff has been coordinating with them regarding the NDEP's Carson River TMDL Vision Plan and Lahontan and AWG's Vision Plan in California.

6. Work with stakeholders to identify and implement additional projects for 319 or other agency funds.

Potential projects were discussed with CVCD, CWSD, Washoe Tribe, DVCD, and others.

## Strategy II. Implement Carson River Floodplain Management Plan

### Milestones:

1. Assist in implementation of outreach and education plan to support the CRFMP and increase understanding of the importance of floodplains in maintaining water quality.

Staff attended Carson River Coalition Education Group meetings to coordinate flood awareness week which is coming up in the fall. The CRC Floodplain Management Workshop group meeting occurred. CWSD co-hosted a Flood Insurance Workshop with DWR and FEMA, for CRC and flood administrators. CWSD Continuing to coordinate with partners High Water Mark signage for Carson City and Douglas Cty. Carson City's mural is in progress. Meetings were attended with the NV Silver Jackets. CWSD provided flood outreach to the Fallon Piute Shoshone Earth Day

2. Support the Living River approach with stakeholders through implementation of projects that release the Carson River to the floodplain.

All currently subgranted projects support the Living River approach, with banks laid back, bioengineering stabilization techniques engaged, and minimal hardscaping of banks to minimize impacts downstream.

## LAS VEGAS WASH

### Strategy I. Implement Las Vegas Wash Comprehensive Adaptive Management Plan

### Milestones:

1. Fund priority projects consistent with CAMP to reduce sediment and other nonpoint source pollutants to the Las Vegas Wash and Lake Mead.

SNWA and CCWRD have open subgrant agreements with BWQP. SNWA entered into a Subgrant Agreement during the quarter to continue annual Green-Up Events, Magnet School Field Trips and to begin Project WET Teacher Trainings at the Las Vegas Springs Preserve.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

SNWA, CCWRD and Get Outdoors Nevada continue to conduct education programs including the utilization of platforms compatible with Covid 19 restrictions.

3. Conduct site visits to funded projects and to further coordinate efforts with identified stakeholders.

No site visits to funded projects were completed during the quarter.

## LAKE TAHOE BASIN

### Strategy I. Manage the Lake Tahoe Total Maximum Daily Load Program to meet the Clarity Challenge of 24 meters by 2026.

### Milestones:

1. Work with Urban Implementing Partners to identify projects and actions to meet load reduction targets and milestones contained in Interlocal Agreements.

Staff reviewed and approved final Annual Stormwater Reports submitted by Nevada urban implementers. Nevada jurisdictions exceeded 2021 credit targets specified in ILAs, achieving 747 credits which translates to a load reduction of approximately 149,000 lbs./year. Staff also coordinated a strategy meeting with TRPA, Douglas County, Washoe County and Nevada Tahoe Conservation District to discuss challenges related to expired and soon to expire parcel BMPs that may effect future credit potential for the jurisdictions. Strategies on how to attain full credit potential for existing registrations were examined. Finally, staff coordinated with urban implementing and coordinating partners to schedule and participate in WY2022 Road RAM assessments performed during the quarter.

Lake Tahoe Watershed

2. Provide funding and staff support for water quality improvement project implementation and program operations improvement.

3. Collaborate with Lahontan Water Board to execute the annual TMDL Management System cycle; including updating, maintaining and reporting implementation progress for urban and non-urban  
4. Renew Interlocal Agreements including updated commitments and schedule of load reduction and associated credit targets.

5. Participate in Tahoe Science Advisory Council meetings to provide TMDL Management Agencies' perspective on key questions, information needs, and workplan development and prioritization.

Staff participated in meetings and discussions regarding Washoe County's Lower Wood Creek Phase 2 project which originally included the installation of two water quality basins. This could not be completed in Phase 1 due to issues securing easements in a timely manner. Easements for one of the water quality basins is in progress and construction will begin Spring 2023.

Staff coordinated with Lahontan Water Board to initiate development of the 2021 TMDL Performance Report and produced a draft document.

Current ILAs are in effect through September 2026.

Staff participated in meetings of the Tahoe Science Advisory Council, including a Data Synthesis and Analysis workshop to review and discuss report findings and recommendations and then collaboratively develop key messaging for Executive Briefing. To commemorate attainment of the ten-year implementation milestone, Program Managers drafted a more detailed TMDL Performance Report for 2022.

## **Strategy II. Coordinate with partner organizations to protect water quality, watershed health, and ensure the effective use of public funding.**

1. Participate on the Stormwater Quality Improvement Committee to coordinate stormwater planning and design activities and to fulfill LTRA project prioritization and reporting requirements.

Staff participated in one Stormwater Quality Improvement Committee (SWQIC) meeting discussing Impacts of Pavement Condition on Fine Sediment Particle Load in Roadway Stormwater Runoff. SWQIC meetings will resume after field season - October 2022.

2. Coordinate with the Tahoe Regional Planning Agency to advance Regional Plan goals and Threshold attainment.

Staff participated in Tahoe Interagency Executive meetings.

3. Participate on grant committees and technical advisory committees as needed.

Staff participated in TRPA SRC monthly Interagency Shoreline Coordination Group.

## **Strategy III. Coordinate with agency partners to address nearshore water quality.**

### **Milestones:**

1. Coordinate with Nearshore Agency Workgroup agencies to implement the Nearshore Resource Allocation Program.  
2. Coordinate TMDL and nearshore program activities and look for opportunities to prioritize implementation actions where multi-benefit objectives may be achieved.

Staff participated in meetings of the Nearshore Agency Work Group (NAWG).

No activity.

## **TRUCKEE RIVER BASIN**

### **Strategy I. Develop Source Water/Watershed Management Plan and get local and EPA Approval.**

#### **Milestones:**

1. Work with local jurisdictions and stakeholders to integrate and complete the SW/WS plan, including the Tributary Plan developed by the TMSWPCC.

The SW/WS Plan was approved by EPA. There are currently two active subgrants implementing projects in the plan.

2. Present final plan to local boards and commissions for approval. Submit to EPA as a 9-element plan and a Source Water Protection Plan.

See above. This milestone is complete.

### **Strategy II. Implement Approved Plan.**

#### **Milestones:**

1. Implement projects and steps delineated in the plan. Fund competitive projects through annual GFO consistent with the plan.

Two projects that are delineated in the Truckee River Watershed Plan are currently supported with 319(h) grant funds.

### **Strategy III. Coordinate with One Truckee River and OTR Stakeholders to continue implementation of OTR Plan.**

#### **Milestones:**

1. Participate on OTR Board.

No Board meetings were attended in part due to a change in NDEP Representation. Jason Kuchnicki has replaced Birgit Widegren, who resigned

2. Participate in OTR Partnership meetings and events.

See above regarding a gap in participation this quarter.

3. Support water quality components of the OTR Plan.

There are currently two active subgrants implementing projects that address components of the OTR Plan.

**Strategy IV: Continue and/or build new partnerships to implement NPS related projects.**

**Milestones:**

1. Work with current and new partners to identify additional implementation or education projects.

2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Project Profiles were developed in the creation of the SW/WS Plan, identifying implementation and education projects and partners. The City of Reno Chalk Creek Erosion Control Project design is 50 percent complete. Truckee Meadows Parks Foundation hosted the Spring Plantapalooza planting event on April 23rd, 2022. Twenty-seven volunteers (totaling 81 volunteer hours) along with TMPF staff and AmeriCorps members were able to plant 945 native plants. Additionally, 130 coyote willow cuttings were harvested and plugged along both Steamboat Creek and Boynton Slough. TMPF continues to develop the Integrated Pest Management (IPM) plan for the Rosewood Nature Study Area. TMPF restoration technicians have treated 4,098 linear feet of streambank through a combination of invasive species removal and establishment of new stabilizing native species. Woody native plugs include coyote willow, chokecherry, wild rose, and buffaloberry. A wetland seed mix with a variety of herbaceous plants, such as rushes and grasses, was also broadcasted. This adds 16 acres of newly treated area. Some areas treated in the last reporting period received additional treatments this quarter. Staff met with City of Reno Stormwater Committee to discuss opportunities for developing Truckee Watershed specific teacher training. Environmental education to reduce NPS pollution was delivered throughout the watershed by Sierra Nevada Journeys' Watershed Education Initiative. Sierra Nevada Journeys (SNJ) provided interactive watershed education programs to 1,323 students and approximately 45 educators in northern Nevada during spring 2022. SNJ was able to provide all in-person class lessons and field trips which has helped to mitigate academic regression and education gaps caused by COVID and its aftermath. The curriculum is aligned to Nevada educational standards and the North American Association for Environmental Education's Guidelines for Excellence, as well as Next Generation Science Standards and Common Core State Standards. Great Basin Outdoor School continues to implement their "Valuing and Protecting our Tahoe Watershed", which includes EE camps in the lower and upper Truckee, and Tahoe Basin. GBOS conducted multiple TERC research boat trips, where students learn about Lake Tahoe water clarity issues, and learn how to measure water clarity using a Succi disk. GBOS held multiple EE camps at Camp Galilee at Lake Tahoe, and River Farm School on the Truckee River, where students gain strong educational instruction about the watershed and environmental stewardship.

Sierra Nevada

**VIRGIN RIVER BASIN**

**Strategy I. Collaborate with existing and emerging natural resource related local working groups and support efforts that may maintain or improve water quality.**

**Milestones:**

1. Attend local working group meetings when deemed appropriate, including with the Virgin River Coalition.

2. Provide technical assistance and grant funding to support local working groups.

3. Identify other resources to facilitate implementation of water quality projects.

4. Encourage local efforts to adapt watershed plan to cover the 9 required EPA elements.

Coalition Steering Committee and Working Group members continued to meet to ensure Coalition Efforts remain aligned with the 319(h) grant scope of work and coalition mission. Several planning meetings were held including the first Bi-Annual Workshop in 2022 that occurred on May 5. For the quarter six Outreach Events were conducted, and 29 Coordination Meetings were held. Nonprofit status continued to be pursued with a Board of Directors selected, and Articles of Incorporation submitted to the Secretary of State. (Approval of Nonprofit status has been delayed. The original hardcopy application to the state was "lost." A new E-file application was submitted with no response from the state to date).

The Subgrant Agreement with the Nature Conservancy that supports Virgin River Coalition efforts, including support of a Watershed Coordinator, remains open.

The VRC Steering Committee has discussed development of a Financial Plan including the identification of multiple funding sources to maintain the Coalition's viability and to fund implementation projects. DCNR's Conserve Nevada Grant Program and State Park's Recreational Trails Program have been identified as potential funding sources in the short term.

Several meetings with the Virgin River Coalition, Steering Committee and Working Groups were attended by staff to maintain communication and stress the importance of keeping water quality and NPS pollution management a key component of the Coalition's watershed improvement strategy.

Virgin River Coalition

**WALKER RIVER BASIN**

**Strategy I. Work with local, state, federal and private resources to address nonpoint source pollution in the Walker River Basin.**

**Milestones:**

1. Restore 500 feet of Walker River channel (100 feet per year) to reduce sediment by 20 tons/year and phosphorus by 20 lbs./year.
2. Conduct environmental education programs to increase awareness of water quality issues and promote actions to reduce NPS pollution.

Native vegetation was planted and cottonwoods were propagated by Walker River State Park staff. Invasive weeds were eradicated with spot weed burning and herbicide treatments.

Walker River State Parks held an Earth Day event on April 30th with education, outreach and volunteer cottonwood planting components and other community outreach events.

**Strategy II. Coordinate with Walker River State Park to improve water quality in Walker River watershed.**

**Milestones:**

1. Work with Nevada Division of State Parks and the Walker River Conservancy to implement ecological restoration projects at a park-scale (14,000 acres) at Walker River State Park.

Native vegetation was planted and cottonwoods were propagated by Walker River State Park staff. Invasive weeds were eradicated with spot weed burning and herbicide treatments. Project is 80% complete.

2. NDEP will approach State Parks regarding being a main stakeholder in the development of an alternative restoration plan or watershed based plan. Other stakeholders (Federal, State, Local, Nonprofit, Private and Tribal) will be invited if they are.

NPS staff has decided to develop both a TMDL Vision and a 9-element Watershed Plan for the East Walker River from outlet of the Bridgeport Reservoir at the California/Nevada stateline. Walker River Conservancy (WBC) have been agreed to serve as fiduciary agent and champion for the 9-element Watershed Plan. Currently, NDEP and WBC are developing a revised draft Scope of Work and budget to create a consultant request for proposal .

**Goal #2. Educate and inform the public about nonpoint source pollution, watershed stewardship and water quality protection to increase awareness, promote behavior change and empower effective water quality protection actions.**

**Objective A. Implement high quality, effective NPS Environmental Education Program.**

**Strategy I. Implement Environmental Education Strategic Plan.**

**Milestones:**

1. Develop next five year Environmental Education Strategic Plan.

The educational and outreach position is implementing plans to enhance education and outreach for industry professionals, stakeholders, and decision makers regarding NPS pollution with a emphasis on exploring opportunities to increase awareness regarding NPS pollution on agricultural lands, and to fill basic watershed education training for educators statewide. Opportunities to develop a NPS technical workshop series and/or a training program with agency partners is being investigated. In addition, staff is engaged at the state level for educating about soil health as a tool for mitigating erosion and nutrient management. Project WET Teacher training gaps throughout the State are being identified and fulfilled.

2. Conduct Project WET Workshops for teachers and other community educators.

Four Project Trainings were conducted during the Quarter. A training was held at the Rosewood Study Area for the NV AmeriCorps State Volunteer program. Two workshops were held at the Springs Preserve in Las Vegas, hosted by Get Outdoors NV, Southern NV Water Authority and NDEP. The trainings included Project WET Guide 2.0 and Discover a Watershed - Colorado River. The trainings focused on Clark County and Lake Mead water resources. The third WET Training was hosted by the Great Basin Outdoor School and NDEP. The training was held at Spooner Lake and Camp Galilee, with a focus on Lake Tahoe and the Truckee River Watershed. Staff is currently working with SNWA to plan a large PWET training in October 2022.

3. Conduct and/or assist with environmental education events including Earth Day, river snapshot monitoring, green-ups, school environmental science classes, etc.

Staff attended and presented at a Great Basin Outdoor School EE camp at Camp Gallilee at Lake Tahoe, discussing runoff, soil erosion, and conducted a couple Project WET activities. Staff assisted with environmental education (benthic macroinvertebrates work station) during the Conserve the Carson Field Day hosted by River Wranglers on 5/17/2022. Staff has been providing technical assistance to partners in the Truckee River Watershed regarding the continuation and planning of the Truckee River SnapShot Days. Meetings were attended with the NV Silver Jackets. CWSD provided flood outreach to the Fallon Piute Shoshone Earth Day.

4. Publish Nevada Water Quality News newsletter.

No activity in this quarter. The next newsletter is planned for Sept 2022.

5. Maintain and regularly update Environmental Education web site.

Project WET website is updated every two months and improved as needed. BWQP developed a 319(h) Story Map website.

Project Wet

6. Provide education and training opportunities on water quality topics of concern to watershed partners, stakeholder organizations, and education institutions upon request.

Staff provided one on one assistance to multiple organizations and entities with respect to NPS pollution mitigation controls, and continue to support the emerging efforts for soil health implementation and education. Staff has developed an educational soil health and water quality video in partnership with the Carson Water Subconservancy District. The video will be published in FY23 Q1. Staff is collaborating with NV Division of Water Resources to develop a virtual on-demand NV Watershed education teacher training, which will meet the requirements of STEM, NGSS, and provide teachers PD units. Staff is coordinating these efforts with the DOE Superintendent office. Staff conduct soil health demos and a presentation to the CWSD Board of Directors.

7. Provide high quality EE materials to school and community educators and the public including Project WET curriculum guides, activity booklets, fact sheets, maps and other resources.

Staff has provided education curriculum resources, activities, and online training opportunity announcements upon request and to all members of the Water Education list serv. In addition, staff is developing video training for teaching about erosion control, runoff and soil health for mitigating NPS pollution.

## Strategy II. Support local or regional environmental education projects.

### Milestones:

1. Invest in environmental education projects that encourage behavior change and citizen involvement in water quality improvement efforts.

Subgrants with Sierra Nevada Journeys, Great Basin Outdoor School, River Wranglers, Get Outdoors Nevada, CWSD, CCWRD, SNWA, and KTMB supported environmental education efforts throughout the state. Sierra Nevada Journeys (SNJ) provided interactive watershed education programs to 1,323 students and approximately 45 educators in northern Nevada during spring 2022.

2. Continue education and training on environmental program effectiveness measurements and standards.

Staff has worked to ensure that all education programs funded in part by the NPS Program will have effective measures and reportable standards that will be reported to EPA.

3. Require appropriate program measurement metrics to determine efficacy of funded education projects.

Appropriate measures were built into the Scope of Works of new education subgrants. Subgrantees provide surveys completed after each education event.

4. Participate with watershed partner programs to support and evaluate.

Evaluations occur at the end of the year and the end of the subgrant.

## Goal #3 Coordinate with State, Federal, local agencies and Tribes to prevent and reduce nonpoint source pollution impacts to surface and groundwater.

### Objective A. Maintain and improve existing partnerships and build new partnerships with other agencies, nonprofit organizations, local watershed groups and private landowners.

#### Strategy I. Provide opportunities for local, State and Federal agencies, Tribes, environmental organizations, etc. to coordinate and collaborate on NPS related issues.

### Milestones:

1. Identify and contact appropriate agencies and stakeholders including BLM, USFS, NRCS, Tribes, NDOW, Nevada Association of Conservation Districts, The Nature Conservancy and others regarding collaboration opportunities.

Staff continues to collaborate and meet with all the partners listed to the left. Meetings were held with BLM, USFS, NRCS, NVaCD, and TNC.

2. Provide technical assistance, education and training to stakeholders on water quality related topics and how to develop project proposals.

Technical assistance was given to several partners. Staff has been assisting CWSD with developing a watershed scale program for educating and implementing agricultural conservation practices, including soil health management systems. Staff has been assisting NVaCD in developing a Soil Health Partnership. Two Community Development Block Grant (CDBG) Wetland Reviews were completed for proposed projects in Elko County.

3. Maintain and update contact information to notify agencies of the release of Grant Funding Opportunity for 319 funds.

The NPS GFO Contact List is continually updated and will be utilized next quarter for the 2022 319(h) GFO release.

4. Provide opportunity for agencies to participate in triennial review of State water quality standards.

No triennial review this quarter.

## Strategy II. Coordinate with NRCS to implement National Water Quality Initiative and other Farm Bill Programs.

### Milestones:

1. Participate in Nevada NRCS State Technical Advisory Committee meetings to encourage the use of Farm Bill funding towards water quality improvement.

No STAC meetings were held during the quarter.

2. Meet with NRCS to discuss Farm Bill programs, develop shared watershed priorities and water quality restoration goals and identify project or education opportunities.

Staff met with NRCS and other stakeholders monthly to build the Watershed Assessment for the NWQI watersheds in the Carson Valley.

3. Partner with NRCS to transfer lessons learned from the NWQI to inform future water quality restoration via Farm Bill/EQIP funding.

No work this quarter.

4. Engage NRCS in dialogue about state water quality priorities and watersheds; share maps and other information.

Staff met with NRCS several times strategizing water quality goals in the NWQI watersheds in the Carson Valley.

**Objective B. Ensure consistency among local, state, federal programs and NDEP Nonpoint Source Pollution Management Plan.**

**Strategy I. Ensure consistency between federal and state programs.**

**Milestones:**

1. Review and comment as determined appropriate on EAs, EISs, Resource Area Management Plans and grazing allotment plans to ensure water quality concerns are addressed.

Staff receives all State Clearinghouse memos via email and reviews the announcement to see if there is comment needed regarding water quality and nonpoint source impacts.

DEP S	Grant #/DIV	Date	Contractor	Project	Amount	Implementation	Outreach	Planning
*S 19-030-1	DIV 37	03/03/20-6/30/22	Truckee Meadows Regional Planning Agency	Building Spatial Awareness of NPS Pollution in the Truckee Meadows	\$25,002.00			X
<del>S 19-031</del>	<del>DIV 46/92</del>	<del>4/24/19-12/31/22</del>	<del>Kingsbury GID</del>	<del>Kingsbury GID Street Sweeping Operations</del>	<del>\$455,000.00</del>	X		
<del>20-014</del>	<del>DIV 46/92</del>	<del>6/20/19-12/31/23</del>	<del>River Wranglers</del>	<del>Carson River Watershed Environmental Education Program</del>	<del>\$114,373.78</del>		X	
<del>20-026</del>	<del>DIV 92</del>	<del>11/23/19-6/30/23</del>	<del>Incline Village General Improvement District</del>	<del>Pilot Project to Reduce Source Water Plastic Pollution at Lake Tahoe</del>	<del>\$61,995.00</del>	X		
*20-027	DIV 97	3/10/20-3/31/22	Washoe County Community Service	Lower Wood Creek Phase 1 Water Quality Improvement Project	\$200,000	X		
<del>20-056</del>	<del>DIV 92/32</del>	<del>2/19/20-6/30/22</del>	<del>Clark County Water Reclamation District</del>	<del>NPS Pollution Outreach and Education Program</del>	<del>\$62,000</del>		X	
20-058	DIV 37	1/27/20-12/31/23	Carson Water Subconservancy District	Carson River Coalition Watershed Coordination Program	\$237,000.00	X	X	X
20-059	DIV 37	2/6/20-12/31/24	Nevada Tahoe Conservation District	Washoe County Lake Clarity Crediting Program	\$39,229.92	X		
20-062	DIV 37/46	4/28/20-12/31/23	Carson Valley Conservation District	Genoa West Fork Carson River Bank Rehabilitation Phase 1	\$400,000	X		
20-063	DIV 37	3/10/20-12/31/23	Nevada Land Trust	Watershed Management Plan for the Truckee River Watershed	\$99,998.00			X
20-064	DIV 96/37	2/24/20-12/31/22	The Nature Conservancy	River Fork Ranch Bank Restoration Project	\$30,541.00	X		
20-065	DIV 37	6/4/20-12/31/22	Nevada Division of State Parks	Riparian Restoration at Walker River Recreation Area	\$100,000	X		
<del>20-073</del>	<del>DIV 92</del>	<del>8/5/20-12/31/24</del>	<del>Southern Nevada Water Authority</del>	<del>Initiatives to Reduce NPS Pollution in Southern Nevada 2020</del>	<del>\$39,950.00</del>	X	X	
21-007	DIV 46/37	7/28/20-12/31/22	Great Basin Outdoor School	Valuing and Protecting our Watershed	\$94,569.00		X	
21-019	DIV 99	2/4/20-12/31/23	Tahoe Regional Planning Agency	BMP Technical Assistance and Lower Kingsbury Treatment	\$160,506.00	X	X	
21-020	DIV 99	2/12/21-12/31/22	The Nature Conservancy	Virgin River Coalition Watershed Coordination	\$41,625.00		X	X
<del>21-024</del>	<del>DIV 99</del>	<del>2/9/21-12/31/22</del>	<del>Sierra Nevada Journeys</del>	<del>Watershed Education Initiative</del>	<del>\$70,000.00</del>		X	
21-027	DIV 99	3/31/21-6/30/23	Carson Valley Conservation District	Genoa West Fork Carson River Bank Rehabilitation Phase 2	\$150,000.00	X		
21-029	DIV 99	4/28/21-12/31/22	Washoe Tribe of NV and CA	East Carson River Bank Stabilization and Restoration	\$100,000	X		
21-030	DIV 99	5/19/21-12/31/22	Southern Nevada Water Authority	Initiatives to Reduce NPS Pollution in Southern Nevada 2020	\$67,500.00	X	X	
21-031	DIV 99/97/46	6/17/21-12/31/23	City of Reno	Chalk Creek Stabilization and Erosion Control at Sapphire Ridge	\$125,000.00	X		
21-033	DIV 99	5/19/21-12/31/22	Douglas County	Westwood Neighborhood & Douglas High School NPS Outreach & LID/BMP Implementation	\$28,776.00	X	X	
22-011	DIV 37	7/28/21-12/31/22	One Truckee River	Public Restroom and Urban River Education	\$119,920.00	X	X	
22-019	DIV 99	10/18/21-6/30/23	Dayton Valley Conservation District	Evaluation and Prioritization of MCR Projects	\$50,000.00			X
22-024	DIV 99	11/8/21-6/30/23	River Wranglers	Carson River Watershed Environmental Education Program	\$85,827.50		X	
22-028	DIV 56	12/41/21-12/31/23	Nevada Tahoe Conservation District	Washoe County Lake Clarity Crediting Program	\$44,393.00	X		
22-030	DIV 56	2/23/22-12/31/24	Kingsbury GID	Street Sweeping Operations	\$160,000.00	X		
22-031	DIV 56	2/1/22-12/31/23	Mason Valley Conservation District	Blanchard Bank Restoration	\$86,000.00	X		
22-032	DIV 37	1/31/22-12/31/22	Nevada Outdoor School	Watershed Heroes 2022	\$10,418.00		X	
22-035	DIV 56	1/12/22-12/31/22	Sierra Nevada Journeys	Watershed Education Initiative	\$73,143.00		X	
22-036	DIV 56	2/1/22-6/30/23	Get Outdoors Nevada	5 NV Water Education Resource Training Hub	\$32,665.50		X	
22-037	DIV 56	1/28/22-6/30/23	Keep Truckee Meadows Beautiful	Nonpoint Source Education Outreach and Action	\$20,814.00	X	X	
22-039	DIV 56	2/16/22-12/31/22	Truckee Meadows Parks Foundation	Rosewood Nature Study Area Phase 2	\$56,000.00	X		
22-041	DIV 57	3/8/22-6/30/23	Carson Water Subconservancy District	Carson River Coalition Watershed Coordination Program	\$137,685.00	X	X	X
					Project Type			
					Count:	22	17	6

\* Grant term extended

Strikethrough indicates subgrant terminated

## Appendix B: Load Reduction Reporting



DATE: May 25, 2022

TO: Birgit Widegren, NPS Program Branch Supervisor,  
Water Quality Planning

FROM: Jon Paul Kiel, Environmental Scientist,  
Water Quality Planning

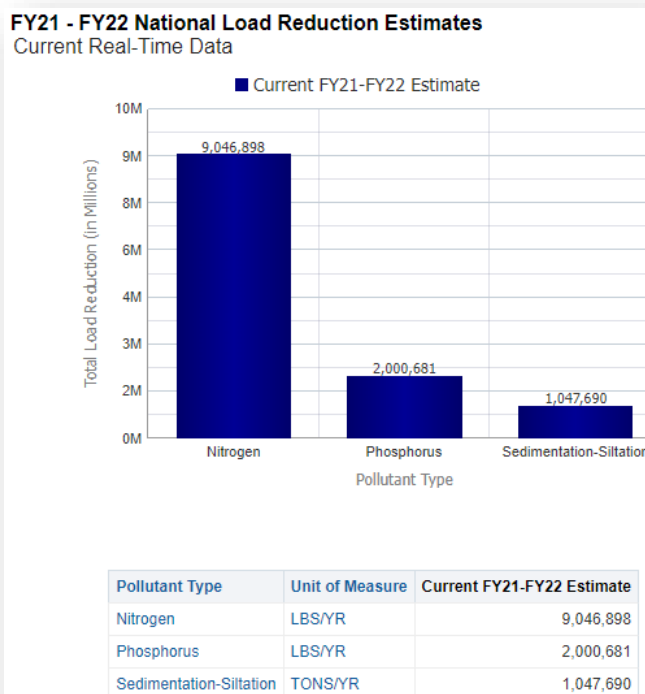
RE: EPA Grants Reporting and Tracking System (GRTS) Annual Load Reduction Reporting  
and Database Administration for the State of Nevada

I have completed GRTS 319(h) Grant Project Load Reduction database entries for the reporting 2021 year. This year entries were due to EPA on or before March 31, 2022. Data was entered prior to the deadline for projects that implemented BMPs in 2021, or where a substantial number of BMPs were installed during the year for projects with multiyear BMP installations. Five projects supported with 319(h) grant funding were able to report load reductions for the state.

## GRTS Load Reduction Outputs

GRTS Load Reduction OBI (Oracle Business Intelligence) Reporting Outputs are shown below. All OBI data outputs in this report were obtained on May 25, 2022.

### National Numbers



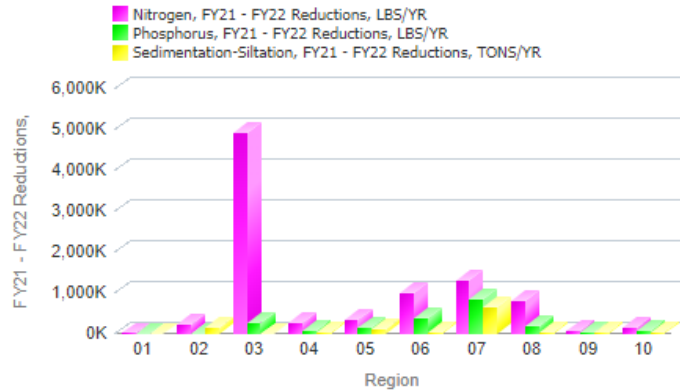
## Regional Numbers

### FY21 - FY22 Load Reduction Estimates by State/Region

Current Real-Time Data

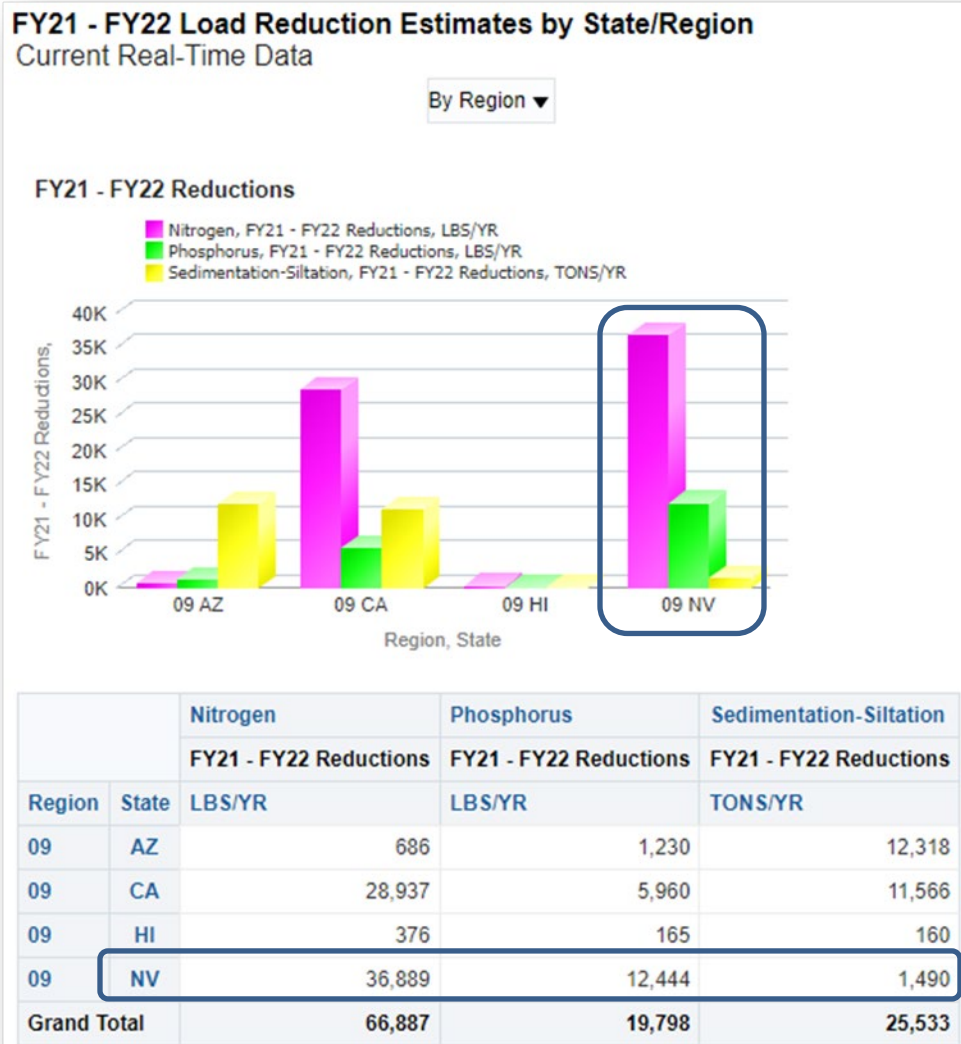
By Region ▼

#### FY21 - FY22 Reductions



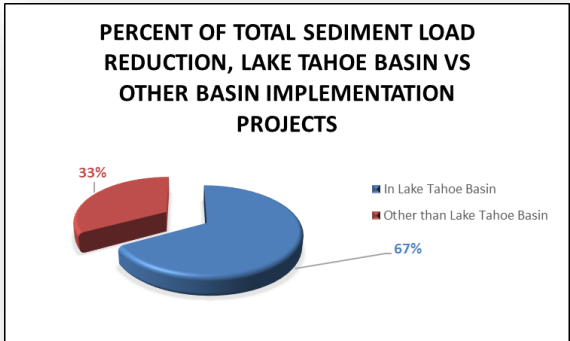
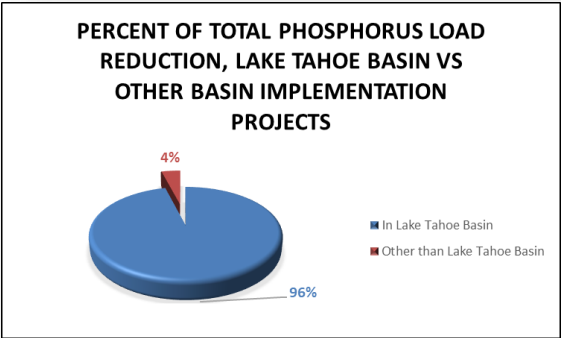
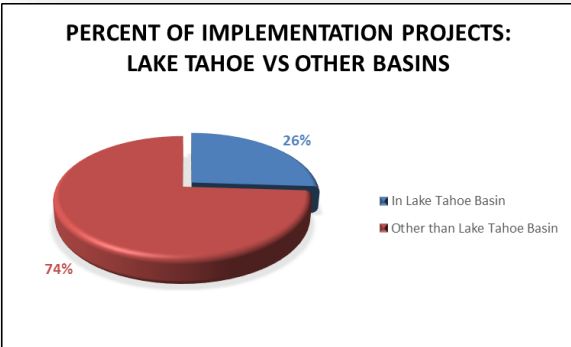
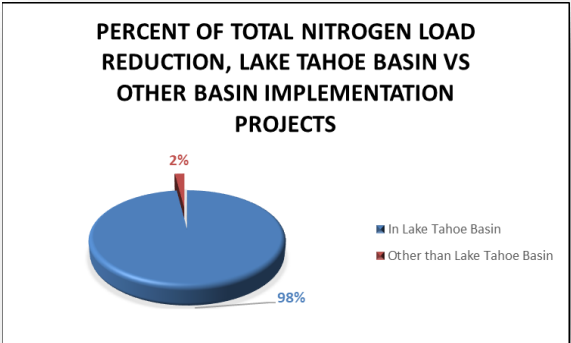
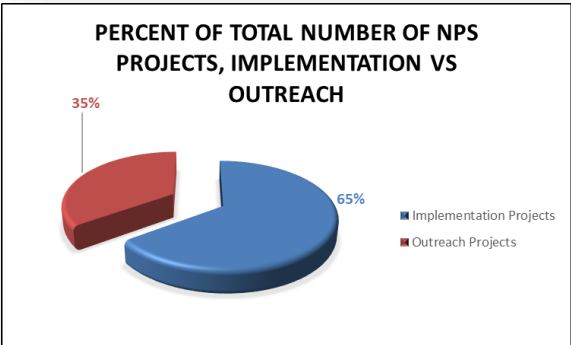
	Nitrogen	Phosphorus	Sedimentation-Siltation
	FY21 - FY22 Reductions	FY21 - FY22 Reductions	FY21 - FY22 Reductions
Region	LBS/YR	LBS/YR	TONS/YR
01	12,423	211	61
02	242,007	3,280	131,876
03	4,920,003	254,917	2,360
04	248,138	76,654	27,504
05	327,960	142,146	116,201
06	978,941	388,835	18,360
07	1,291,550	847,839	637,290
08	818,624	192,947	43,565
09	66,887	19,798	25,533
10	140,364	74,054	44,939
Grand Total	9,046,898	2,000,681	1,047,690

## State Numbers



Nevada’s Active 319(h) Grant Supported Project Inventory

Nevada’s 2021 active 319(h) project inventory contained 35 percent public outreach and education projects, and 65 percent BMP Implementation projects. Most public outreach projects do not include a measurable load reduction element. Conversely, many implementation projects include a public outreach element. Of the load reductions realized as a result of BMP implementation, BMPs installed in the Lake Tahoe Basin resulted in the largest share of the reductions realized during the 2021 reporting year. Seventy-four percent of the projects that were able to report load reductions were located in the Lake Tahoe Basin.



## Nevada Load Reduction Trends

Nevada's 2021 GRTS OBI outputs show that load reduction amounts for nutrients and sediments were the lowest recorded in the last twelve years. Three of five completed projects reported most of the load reduction for the reporting year. Several projects completed during the reporting year focused on education and outreach and therefore do not have measurable load reductions to report. Numerous projects with anticipated load reductions that are currently being implemented will report out load reductions in the future.

Lower load reduction numbers are in part due to the small number of projects able to report load reductions. But another factor is likely a significant cause for the fall in numbers during 2021, and likely in the future: Higher project costs. To quote *Ecosystem Marketplace*, "Addressing stormwater runoff and other water-related challenges is getting insanely expensive." Several erosion control projects supported with Nevada 319(h) grant funds have had to request additional funding to address project bids that exceeded original project cost estimates. Rising project administrative, material and labor costs translate into reduced load reductions per dollar expended. When identifying new water quality improvement projects to implement, watershed managers found long ago that all the low hanging fruit has already been picked. Current projects are more complex to plan and implement often due to multi-jurisdictional local, state and federal involvement, challenging site conditions, and/or the presence of pollutants that are difficult to sequester, treat, or remove. One example here is the presence of mercury on the Lower Carson River watershed.

At the same time, national NPS Pollution Management Program budgets have remained flat if not slightly decreased. Nevada's 2021 NPS Pollution Management Grant Program awarded \$800,000 to qualifying projects. This is approximately \$300,000 less than in previous years, and was due in part to a lack of carry-over funds. With an inflation rate of 3 percent, in ten years \$800,000 will be worth \$584,000. With higher project costs and less funding to award, total load reductions achieved over time may trend downward. "Peak Load Reduction" for the state of Nevada appears to have occurred in 2016.

Fortunately, cumulatively, load reductions will continue to follow a positive trend (See below for additional information). Only when states stop investing in NPS pollution management projects will cumulative trend lines become flat.

Reductions in pounds and tons are shown below:

	Nevada 319(h) Load Reductions by Year, Average Load Reduction						
	2010	2011	2012	2013	2014	2015	2016
Nitrogen, lbs	171,151	126,642	276,559	112,200	166,416	202,357	298,144
Phosphorus, lbs	48,877	34,005	78,361	29,883	37,993	50,197	192,020
Sediment, tons	4,598	3,883	11,179	6,407	3,706	5,256	12,183

	2017	2018	2019	2020	2021	Average LR
Nitrogen, lbs	70,043	224,146	80,113	158,059	36,888	160,227
Phosphorus, lbs	18,007	64,067	21,059	46,028	12,443	52,745
Sediment, tons	1,846	5,231	4,739	3,860	1,489	5,365

## Nonpoint Source Pollution Outreach and Education

As noted above, a significant percentage of Nevada's 319(h) grant dollars go to public outreach and education efforts. A load reduction metric cannot be used to evaluate the effectiveness of these projects, yet without these ongoing efforts to educate citizens, nonpoint source pollution particularly in populated areas would certainly be worse. Reducing nonpoint source pollution in Nevada is and will continue to be a challenge but remains important in the nation's driest state where water resources are scarce.



*Clark County Water Reclamation District staff engage with volunteers at a Southern Nevada Water Authority Green-Up revegetation project.*

Measuring the effectiveness of nonpoint source pollution education and outreach programs is done using metrics other than load reductions. What metrics are used depends upon the nature and scope of the outreach. Clark County's Nonpoint Source Pollution Outreach Program educates the residents of Clark County via multiple platforms including radio advertising, billboard advertising, attendance at related outreach events, topic specific flyer mailings<sup>1</sup>, an interactive stormwater website, and audience and topic specific workshops.

The number of persons reached by messaging is the simplest effectiveness measure that assumes that the higher the number of "impressions" made, the higher the number of people whose actions in the watershed are likely to change to benefit water quality. Pre and post knowledge tests are also used to determine if outreach information has reached the intended audience. How many persons then change their behavior in a manner that would benefit water quality may be measured by conducting post-outreach knowledge and action surveys.



If more impressions translate to more positive actions, billboard messaging may be one of the more effective outreach platforms to take advantage of. In the case of changeable message billboard use, a message that airs for 8 seconds is calculated to deliver approximately 35 two-second impressions to drivers per airtime. During the September – October 2021 quarter, 9,513,972 impressions<sup>2</sup> were delivered to Clark County drivers.

<sup>1</sup>The Private Lift Station informational brochure is one example of several NPS pollution related specific topic brochures that has been produced by Clark County. Lift station flyers were mailed to 200 property owners with lift stations that are prone to Sanitary Sewer Overflows (SSOs) if not properly maintained.

<sup>2</sup>Multiple billboards displayed changeable NPS pollution prevention messages.



Using radio<sup>3</sup> as a messaging platform, Clark County reported that NPS pollution prevention related messages on the airwaves during 2020 and 2021 reached between 2.5 million English speaking residents and 500,000 Spanish speaking residents monthly. Messaging on National Public Radio is estimated to reach 425,000 residents monthly.

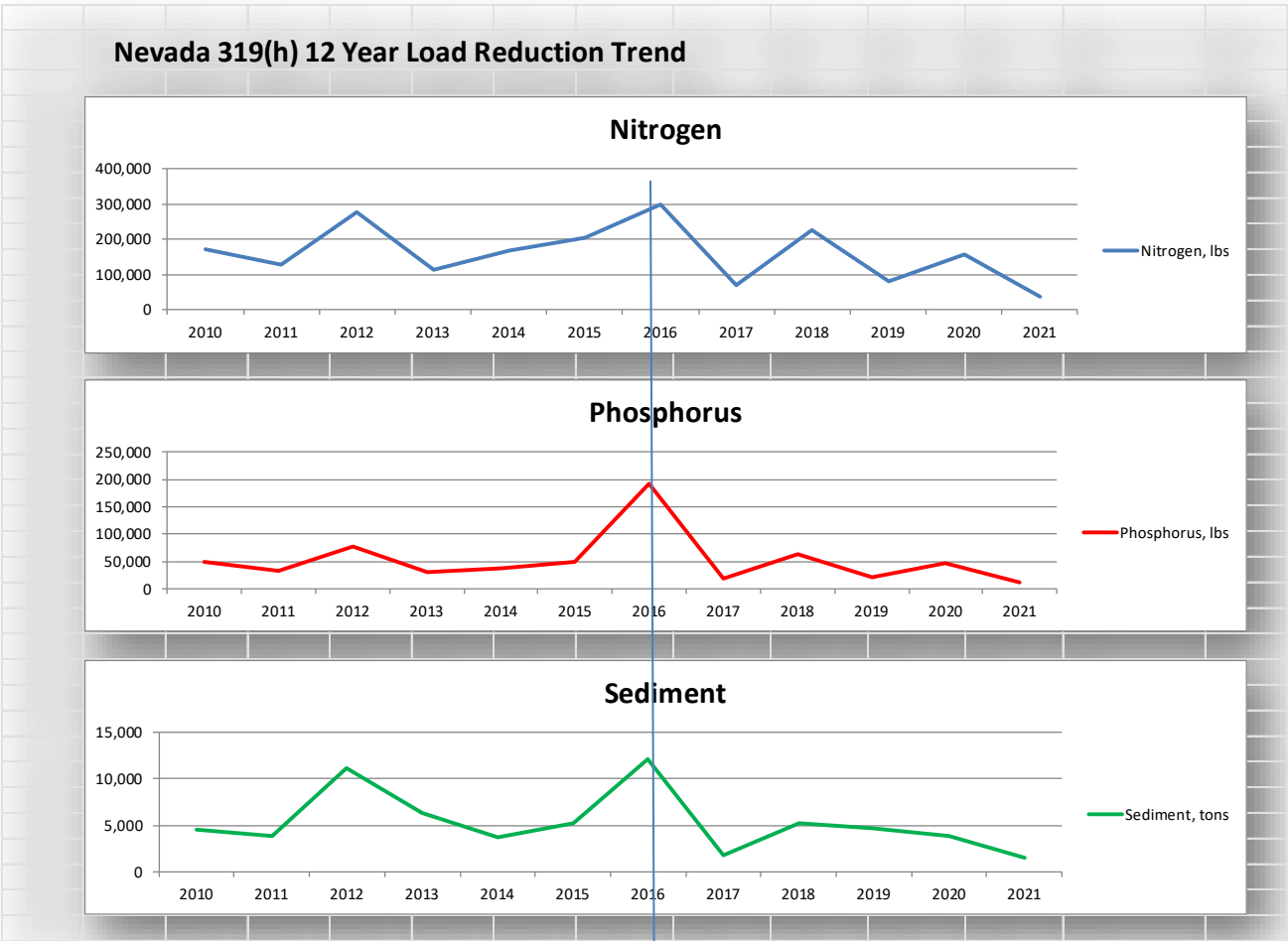
<sup>3</sup>iHeart and LaBuenda radio station metrics.

In the Carson River Watershed, the Carson Water Subconservancy District has launched the “Water Connects Us All – I am Carson River Watershed” Campaign. Translating the effectiveness of this messaging to measurable load reductions is like stacking ball bearings, yet intuitively watershed managers understand that the impact of this approach on the target community must be positive. Watch “Water Connects Us All” by clicking the link below (or by copying the following URL into your browser):

[Water Connects Us All - I Am Carson River Watershed campaign - YouTube](https://www.youtube.com/watch?v=z3D_nNH77ao)

[https://www.youtube.com/watch?v=z3D\\_nNH77ao](https://www.youtube.com/watch?v=z3D_nNH77ao)




The line graphs below show Nevada’s reportable load reductions by year due to NPS Pollution Management Grant Program project implementation:



Peak Load  
Reduction?



Load reductions by watershed with reportable amounts for the reporting year are shown below:

		Nitrogen, lbs	Phosphorus, lbs	Sediment, tons
Nevada Total Load Reduction:		36,888.60	12,443.70	1,489.85
Load Reduction by Watershed				
		Nitrogen, lbs	Phosphorus, lbs	Sediment, tons
	Lake Tahoe Basin	36,005.00	12,002.50	1,037.55
	Colorado River Basin	1.60	0.20	0.00
	Carson River Basin	882.00	441.00	452.3

### Calculation of Load Reductions

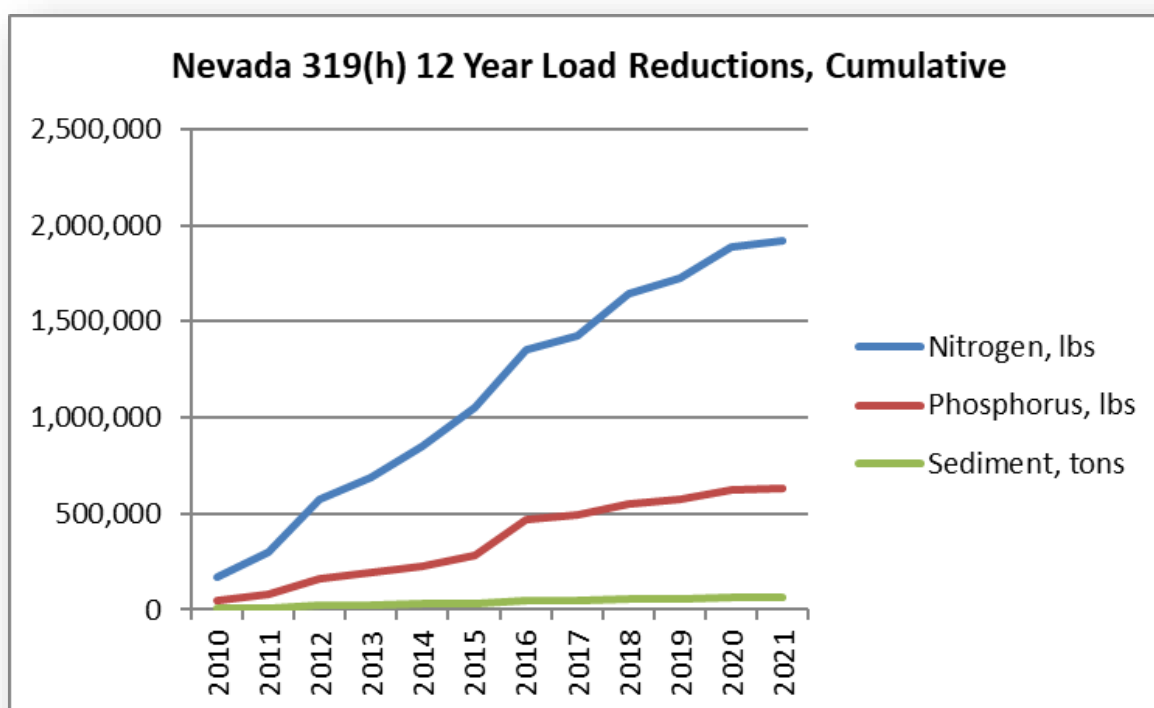
Load reduction numbers for the 2021 reporting year were generated using EPA's Spreadsheet Tool to Estimate Pollutant Load (STEPL) and Region 5 load reduction models. In the case of reductions reported for Lake Tahoe BMP implementation, the Tahoe Region's Pollutant Load Reduction Model (PLRM) with variable assumption inputs related to a specific project type were used.

There are several open 319(h) grant funded projects across the state in other watersheds. These projects are scheduled to be completed in 2022 or later, at which time any associated load reductions will be reported.

## Program Cumulative Load Reductions

Nevada's twelve-year, cumulative load reduction numbers and curves for nitrogen, phosphorus, and sediment are shown below:

Nevada 319(h) 12 Year Load Reductions, Cumulative												
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Nitrogen, lbs	171,151	297,793	574,352	686,552	852,968	1,055,325	1,353,469	1,423,512	1,647,658	1,727,771	1,885,830	1,922,718
Phosphorus, lbs	48,877	82,882	161,243	191,126	229,119	279,316	471,336	489,343	553,410	574,469	620,497	632,940
Sediment, tons	4,598	8,481	19,660	26,067	29,773	35,029	47,212	49,058	54,289	59,028	62,888	64,377



## Reported Calendar Year Load Reductions versus Cumulative

In addition to load reductions associated with public education efforts that cannot be measured or otherwise captured, EPA's Grant Reporting and Tracking System does not account for load reductions resulting from continued BMP performance beyond the load reduction reporting calendar year. Cumulative load reduction metrics are not captured via GRTS, and therefore are not reported to Congress. Yet the benefits of installed BMPs typically continue well beyond the reporting year. These benefits are not reported in part because the performance of BMPs over an extended time can be extremely variable. The accuracy in calculating cumulative loading in most cases would be so low as to make this information unreliable. States and EPA acknowledge the ongoing, cumulative benefit but simply do not attempt to quantify it.

Cumulatively, since 2010, NPS projects prevented 1.9 million pounds of nitrogen from entering into Nevada's waterways. *This is equivalent to 380,000 - 50 pound bags of 10-10-10 fertilizer.*

The variable that has the greatest impact on continuing BMP performance is BMP maintenance. In many cases, BMP monitoring is needed to evaluate maintenance needs. Both are dependent upon resources that are often not included in a BMP project budget, so it is common for BMPs that would benefit from maintenance to not receive it. Despite a lack of maintenance in some instances, when a BMP performs at a high level for more than a year, the cumulative load reduction benefit over time that is not captured by GRTS is an important factor that deserves mention in the context of NPS pollution management.

### **GRTS Mandated Elements**

Nevada GRTS Reports (OBI Query outputs) currently indicate 16 project records with Mandatory Element Errors for *project years* 2002 through 2021, and zero Load Reduction errors. These errors act as flags to GRTS Regional Administrators. They point to projects that are likely to report load reductions in future years, and due to the database's structure, are appropriate to remain. They will be eliminated when actual load reduction numbers are inputted.

States are required to use GRTS to report all nationally mandated elements described in the most recent GRTS memorandum located on the GRTS website ([www.epa.gov/nps/grts](http://www.epa.gov/nps/grts)). The mandated elements are comprised of parameters that EPA reviews to account for and report to congress the accomplishments of the § 319 program from a nutrient and sediment load reduction standpoint.

### **Projects with Missing Load Reductions**

Nevada GRTS Reports (OBI reporting outputs) show no projects with missing load reductions.

### **Questionable Load Reductions**

Nevada GRTS Reports (OBI reporting outputs) show three projects with a questionable load reduction value (Too Small or Too Large?). Included in this group is the KGID Sweeper Purchase with a reported load reduction that appears Too Small. The pollutant load reduction model applied to this project primarily measures fine sediment particles (FSPs). Preventing even small quantities of FSPs from entering Lake Tahoe are critical to steering lake clarity direction and trend.

On the other hand, Lake Tahoe BMP related load reductions appear too large. This "single project" reports the installation of BMPs on hundreds of developed parcels in the Lake Tahoe Basin on which this project provided technical assistance. Although the respective load reduction per parcel may be small, cumulatively, these load reductions add up to large amounts.

## Covid-19 Project Impacts Continued in 2021

Many 319(h) grant funded projects continued to be impacted by the Covid-19 Pandemic in 2021. Administrators of Public Outreach projects that typically engage large gatherings of students, volunteers, and the general public either cancelled events or reinvented their project to successfully complete outreach tasks. One example of a Covid-19 impacted project task is the semi-annual Green-Up revegetation event held by the Southern Nevada Water Authority. This event gathers hundreds of volunteers that meet to revegetate floodplain terraces and wetlands previously infested with tamarisk. This event includes a BBQ luncheon, and periodically requires volunteers to be bused to worksites. Although restrictions on larger gatherings were eased in 2021, SNWA made the decision to cap the number of volunteers attending the spring 2021 Green-Up revegetation event to 150 persons (Pre-Pandemic Green-Up Events typically included 300-500 volunteers).

Several grantees have employed digital technology to reach their audience while avoiding gatherings. Video productions have become a common tool to dispense information relating to the protection of water quality. Used sparingly in the past, videos and other digital tools are becoming more common, and will continue to be employed post-pandemic. Click the link here (or copy the following URL into your browser) to view an example of an educational video created by the Southern Nevada Water Authority: [The Las Vegas Wash](https://www.youtube.com/watch?v=AJGGN7NIEcA)

<https://www.youtube.com/watch?v=AJGGN7NIEcA>

Implementation projects have been impacted less by Covid-19. Meetings required to conduct permit and design review can be held virtually, and groundwork continues weather permitting.

## Funds are Adequately Leveraged

Nevada appears to have successfully leveraged the relatively small percentage of 319(h) funding budgeted nationally (0.85 percent). Nevada's match to grant ratio, as reported by EPA GRTS query outputs, compares to other Region 9 states as follows:

R9	Total 319(h) Funds Expended, 2002 - 2021	Total Match Expended	Match Ratio
AZ	\$28,339,745.00	\$6,618,541.00	0.23
CA	\$93,062,764.00	\$99,032,851.00	1.06
HI	\$17,054,702.00	\$8,666,750.00	0.51
NV	\$18,031,971.00	\$25,355,636.00	1.41

The ratios reported above represent cost share expenditures originally budgeted for a project. In many cases, the actual cost share expenditure is higher than the original contractual amount.

In the coming months, as new project contracts are executed, new project information will be entered into the database and Mandatory Errors addressed as soon as possible.

Please contact me should you have any questions concerning the above reporting.

## Appendix C: Project Updates

# Kingsbury GID Street Sweeping Operations

Kingsbury General Improvement District (GID)

## Project Partners:

Douglas County

## Project Location:



Lake Tahoe Basin, Nevada

## Project Goals:

- ✓ Provide updated procedures and a sweeping schedule to Douglas County to update the Road Operations Plan (ROP) associated with the KGID road registration
- ✓ Operate and maintain the new sweeper according to ROP protocols and procedures, and make appropriate protocol adjustments to optimize reduction of FSP in urban stormwater runoff to Lake Tahoe
- ✓ Provide support to Douglas County for the purposes of assessing and reporting sweeping activities and effectiveness

Subgrant Term:

4/24/2019 -

12/31/2022



## Projects Summary:

In summer of 2019, Kingsbury General Improvement District (KGID) researched and tested several high efficiency sweepers prior to purchasing a Tymco 600BAH. KGID has been operating the sweeper since it was delivered in spring of 2020. KGID was awarded a subsequent 319(h) grant and entered into contract in 2022 to procure an additional sweeper which will help further remove accumulated sediment off roadways and reduce fine sediment and nutrient pollutant loadings in stormwater runoff. KGID road operations are a significant component of Douglas County's plan to attain pollutant load reduction targets contained in the Interlocal Agreement to Implement the Lake Tahoe TMDL.

## Measures of Progress

- ✓ KGID Road Registration submitted and approved beginning the 2020 water year.
- ✓ Douglas County declared and was awarded 8 credits for each of the 2020 & 2021 water years.
- ✓ Road operations reduce stormwater loads, on average, by over 1500 pounds of fine sediment, 3.5 pounds of phosphorus, and 7 pounds of nitrogen each year.
- ✓ Under new agreement, road registration will be expanded to arterials and collector roads throughout KGID's jurisdiction, for approximately 24 credits.

## Fiscal Summary:

	old contract	new contract
319(h) funds	\$ 155,000	\$ 160,000
Non-federal match funds	\$ <u>287,769</u>	\$ <u>269,386</u>
Total Project Cost	\$ 442,769	\$ 429,386



## Project Status:

The old contract terminated in March 2021. The new contract was executed in February 2022.

## Related Project Web-links

<https://stormwater.laketahoeinfo.org/RoadRegistration/Detail/3>

# Lower Wood Creek Phase I Water Quality Improvement Project

Washoe County Community Service

## **Project Partners:**

Nevada Division of State Lands  
Tahoe Regional Planning Agency  
Nevada Department of Transportation  
Incline Village General Improvement District  
Nevada Tahoe Conservation District  
Nichols Consulting Engineers

## **Project Location:** ★

Lake Tahoe Basin, Nevada

## **Subgrant Term:**

3/10/2020 -  
3/31/2022



## **Project Goals:**

- ✓ *Implement the Lake Tahoe TMDL by planning, designing and constructing capital improvements that prevent stormwater pollution from entering the lake.*
- ✓ *Provide for public safety by designing a project that has no adverse effects on public safety.*

## **Project Summary:**

Lower Wood Creek contributes a relatively high fine sediment particle load from directly connected catchments to Lake Tahoe. Notable water quality concerns within the project area include unprotected and erodible road shoulders that experience heavy parking pressure; bare earth ditches that serve as the primary drainage conveyance; and Wood Creek culverts with limited ability to convey greater than the average annual creek flow. This project addressed concerns to reduce fine sediment particle loads in stormwater to Lower Wood Creek and improve infrastructure capacity to convey stormwater during high flow events.

## **Project Progress**

- ✓ *Project implementation started July 2021 and was completed in October 2021.*

## **Fiscal Summary:**

319(h) funds	\$200,000
Non-federal match funds	<u>\$3,149,109</u>
Total Project Cost	\$3,349,109

**Project Status:** Closed

**Project Web-links:** <https://eip.laketahoeinfo.org/Project/FactSheet/01.01.01.0111>

# Washoe County Lake Clarity Crediting Program Implementation

Nevada Tahoe Conservation District

## **Project Partners:**

Washoe County  
Northwest Hydraulic Consultants

## **Project Location:** ★

Lake Tahoe Basin, Nevada

## **Subgrant Term:**

12/04/2021 -  
12/31/2023



## **Project Goals:**

- ✓ Register Washoe County priority pollutant controls in the Stormwater Tools system on LT Info to meet NDEP Interlocal Agreement obligations.
- ✓ Conduct Pollutant Load Reduction Model (PLRM) modeling to estimate load reductions expected from implemented pollutant controls.
- ✓ Perform inspections to assess and report the condition of key and essential pollutant controls.

## **Project Summary:**

This is a continuation project to assist Washoe County to fulfill obligations and commitments contained in the Interlocal Agreement (ILA) to Implement the Lake Tahoe Total Maximum Daily Load (TMDL) with the Nevada Division of Environmental Protection (NDEP). The Nevada Tahoe Conservation District (NTCD) will work closely with Washoe County and NDEP to implement technical elements of the Lake Clarity Crediting Program and document attainment of load reduction milestones and associated credit targets contained in the ILA. Specifically, pollutant controls identified in Washoe County's load reduction plans will be registered and inspected using the updated suite of stormwater tools.

## **Project Progress**

- ✓ In 2021, Washoe County was awarded 367 Lake Clarity Credits when only 305 were required to successfully attain their 10-year milestone. This translates to pollutant load reductions of over 70,500 lbs/year for fine sediment, 270 lbs/year of phosphorous and 985 lbs/year of nitrogen.
- ✓ In October 2021, the Interlocal Agreement to Implement the Lake Tahoe TMDL, updated for the period 2022-2026, was executed.

## **Fiscal Summary:**

	old contract	new contract
319(h) funds	\$ 39,230	\$ 44,393
Non-federal match funds	<u>\$ 31,787</u>	<u>\$ 46,022</u>
Total Project Cost	\$ 71,017	\$ 90,415

**Project Status:** Both the old contract terminated and the new contract was executed in December 2021.

## **Project Web-links:**

<https://stormwater.laketahoeinfo.org/Registration/Index>,





# Best Management Practices Technical Assistance and Lower Kingsbury Area-Wide Treatment Implementation

Tahoe Regional Planning Agency

## Partners:

Washoe County  
Douglas County

## Project Location: ★

Lake Tahoe Basin, Nevada

Subgrant Term:

2/04/2020 -

12/31/2023



## Project Goals:

- ✓ *Improve clarity of Lake Tahoe implementing parcel BMPs as pollutant controls.*
- ✓ *Install water quality improvements and Low Impact Development (LID) techniques that provide area-wide stormwater treatment, promote floodplain expansion and enhance the tributary of Edgewood Creek.*

## Project Summary:

NPS pollution from urban stormwater threatens Lake Tahoe's clarity. Lake Tahoe's Total Maximum Daily Load (TMDL) identifies implementation of BMPs in the urban uplands as a key strategy for restoration. The proposed project reduces NPS pollution and improves the condition of Nevada watersheds by facilitating implementation and maintenance of BMPs and by installing the Lower Kingsbury Area-Wide Water Quality Treatment project, EIP # 01.01.04.0087.

## Project Progress

- ✓ **TRPA issued 68 new BMP certificates** (58 Single Family Residences, 6 Multi-Family Residences and 4 Commercial Properties) **and re-issued 172 BMP Certificates** (32 Single Family Residences, 138 Multi-Family Residences and 2 Commercial Properties).
- ✓ Current total pollutant load reductions since the start of the project are 1,102 tons per year of TSS, 26 tons per year of total nitrogen, and 6 tons per year of total phosphorus.

## Fiscal Summary:

319(h) funds	\$171,708
604(b) funds	\$ 40,000
Non-federal match funds	<u>\$171,708</u>
Total Project funds	\$383,416

## Project Status:

In progress

## Related Project Web-links

<http://www.tahoebmp.org/bmpresources.aspx>



# Pilot Project to Reduce Sourcewater Plastic Pollution at Lake Tahoe

Incline Village GID

## **Project Partners:**

Tahoe Water Suppliers Association  
UC Davis TERC  
Sierra Watershed Education Partnerships  
Incline High School

## **Project Location:** ★

Lake Tahoe Basin, Nevada

Subgrant Term:  
11/22/2019 -  
6/30/2022



## **Project Goals:**

- ✓ *Raise public awareness of plastic pollution in the environment and the impacts of consumer choices*
- ✓ *Reduce the presence of plastic in Lake Tahoe and on beaches through reduction of single-use plastics*

## **Project Summary:**

The project includes education and public outreach to achieve a behavior change in the region with the goal of raising awareness of plastic pollution, increasing public understanding of the different types of plastics and the impacts of their consumer choices, reducing the use of single-use plastic, and thereby reducing the presence of plastic in Lake Tahoe's waters and beaches.

## **Project Successes**

- ✓ *Public education campaign completed for Drink Tahoe Tap and Take Care Tahoe.*
- ✓ *2500 refillable water bottles purchased and distributed with Drink Tahoe Tap insignia.*
- ✓ *17 new fill stations installed and doubled the number of locations listed on the Drink Tahoe Tap Water Refill Station App.*
- ✓ *Four exhibits developed for UC Davis's Tahoe Science Center and other outreach events*
- ✓ *Ten locations across the Tahoe Basin with signs and reusable water bottles available to customers, including all Tahoe area Raley's.*

## **Fiscal Summary:**

319(h) funds	\$ 61,995
Non-federal match funds	\$ <u>78,200</u>
Total Project Cost	\$140,195

**Project Status:** Complete

## **Project Web-links:**

<https://takecaretahoe.org/take-action/tahoe-tap/>

<https://takecaretahoe.org/drink-tahoe-tap/>

<https://tahoe.ucdavis.edu/microplastics>

<https://www.tahoefund.org/projects/completed-projects/drink-tahoe-tap-water-refill-stations/>



# Carson River Watershed Environmental Education Program

River Wranglers

DEP S 20-014

## Project Partners:

Carson Water Subconservancy District  
Carson Valley Conservation District  
Dayton Valley Conservation District

## Project Location:



Carson River Watershed:  
Douglas, Lyon, Storey, Churchill County,  
Carson City County and Alpine County, CA

## Subgrant Term:

6/20/2019 -  
12/31/2021



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**



**Project Goals:** *Maintain partnerships with local schools and offer opportunities for increased knowledge and understanding of nonpoint source pollution (NPSP) on a watershed basis by fulfilling the following tasks:*

- ✓ *Inform students and educators, clubs and service groups about watershed concepts, with the message that what they do on land affects the health of local streams and water bodies.*
- ✓ *Provide the materials and knowledge to integrate EE programs into school curriculums, and club and service groups' ethos and culture.*
- ✓ *Conduct workshops, training sessions, and field days in the Carson River watershed.*
- ✓ *Facilitate a change in "citizen" behavior by informing participants how their personal habits and lifestyles impact their environment.*

## Project Summary:

The Environmental Education Program introduces, promotes, and sustains an environmental education focus on NPSP prevention for local schools, clubs and service groups within the Watershed. The program recognizes that youth and children are our future leaders and policy makers, and are proven and effective messengers to older age groups. Additionally, River Wranglers' core environmental education model engages high school student mentors to teach younger students environmental stewardship of our riparian areas.

## Project Outcomes to Date:

- ✓ *The shutdown in response to COVID had a huge impact on this project ability to deliver their normal education program*
- ✓ *Provided EE to numerous schools, clubs and service groups throughout the watershed, including field trips, and modifying to a virtual platform.*
- ✓ *Many of the schools had multiple programs (Trout in the Classroom, Conserve the Carson River Workdays, bioassessment days, wrap-ups, and Snapshot Day),*
- ✓ *Developed/updated Logic Model for River Wranglers.*
- ✓ *Pre- and post-tests administered.*
- ✓ *Developed an interactive online curriculum as a response to COVID and reached 225 students*
- ✓ *Reached a total of 11,513 students throughout the project term (with repeated students)*
- ✓ *EE outreach was performed through social media and tabling at events.*

## FINAL Fiscal Summary:

319(h) grant award and expended      \$114,373.78  
Non-federal match generated      \$121,609.76

**Related Project Weblinks:** <http://www.riverwranglers.org/>

<https://www.facebook.com/riverwranglersnv/>

**Project Status:** Project completed and closed out.

# Carson River Watershed Environmental Education Program, 2022

River Wranglers

DEP S 22-024

## Project Partners:

Carson Water Subconservancy District  
Carson Valley Conservation District  
Dayton Valley Conservation District

## Project Location:



Carson River Watershed:  
Douglas, Lyon, Storey, Churchill County,  
Carson City County and Alpine County, CA

Subgrant Term:  
11/08/2021 - 6/30/2023



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**



**Project Goals:** *Maintain partnerships with local schools and offer opportunities for increased knowledge and understanding of nonpoint source pollution (NPSP) on a watershed basis by fulfilling the following tasks:*

- ✓ *Inform students and educators, clubs and service groups about watershed concepts, with the message that what they do on land affects the health of local streams and water bodies.*
- ✓ *Provide the materials and knowledge to integrate EE programs into school curriculums, and club and service groups' ethos and culture.*
- ✓ *Conduct workshops, training sessions, and field days in the Carson River watershed.*
- ✓ *Facilitate a change in "citizen" behavior by informing participants how their personal habits and lifestyles impact their environment.*

## Project Summary:

The Environmental Education Program introduces, promotes, and sustains an environmental education focus on NPSP prevention for local schools, clubs and service groups within the Watershed. The program recognizes that youth and children are our future leaders and policy makers, and are proven and effective messengers to older age groups. Additionally, River Wranglers' core environmental education model engages high school student mentors to teach younger students environmental stewardship of our riparian areas.

## Project Outcomes to Date:

- ✓ *Provided EE to numerous schools, clubs and service groups throughout the watershed, including field trips, and modifying to a virtual platform.*
- ✓ *Many of the schools had multiple programs (Trout in the Classroom, Conserve the Carson River Workdays, bioassessment days, wrap-ups, and Snapshot Day),*
- ✓ *Trout in the Classroom was conducted with 4<sup>th</sup> grade students.*
- ✓ *EE outreach was performed through social media and tabling at events, including Earth Day events.*

## FINAL Fiscal Summary:

319(h) grant award and expended	\$85,827.20
319(h) expended to date	\$32,287.62
Non-federal match generated	\$49,863.17

**Related Project Weblinks:** <http://www.riverwranglers.org/>

<https://www.facebook.com/riverwranglersnv/>

**Project Status:** Project in progress, 50% complete

# Watershed Coordination Program

Carson Water Subconservancy District (CWSD) DEP S 22-040

## Project Partners:

Alpine Watershed Group, Carson City, Churchill, Douglas, Lyon and Storey Counties, Lahontan Regional Water Quality Control Board, River Wranglers, NRCS, Conservation Districts in Carson Watershed, other stakeholders

## Project Location:

Entire Carson River Watershed



Subgrant Term: 1/20/2020 - 6/30/2021



## Project Goals:

- ✓ Implement the Carson River Watershed Adaptive Stewardship Plan and Regional Floodplain Management Plan
- ✓ Regional coordination of projects and programs that protect water quality and riparian areas
- ✓ Regional coordination to implement land use practices that protect the river system
- ✓ Continue to develop and implement Watershed Literacy Plan, including the "I am Carson River Watershed Campaign"
- ✓ Development of an online ArcGIS map viewer to track CRASP projects and implementation.

## Project Summary:

The Carson River Coalition Watershed Coordination Program (Program) oversees and coordinates the Integrated Watershed Planning Process (IWPP) to improve resource health in the Carson River Watershed (Watershed) through projects and educational outreach. To improve water quality and reduce NPS pollution in the Carson River Watershed, it will take an informed citizenry. The Program regionally coordinates public and private entities' efforts to restore, conserve, plan, and manage the resources within the Watershed. The program is administered by Carson Water Subconservancy District (CWSD).

## Project Outcomes:

- ✓ Coordinated with stakeholders implementing river rehabilitation and stabilization projects along the Carson River.
- ✓ Implemented Carson River Watershed Stewardship Plan and Regional Floodplain Management Plan.
- ✓ Worked with Carson City Douglas County to develop plans to incorporate LID ordinance into code.
- ✓ Implemented and continued to develop comprehensive Watershed Literacy Plan through multiple delivery mechanisms.
- ✓ Coordinate with stakeholders to develop an Agricultural Working Group within the Carson River Coalition to increase breadth and reach of outreach.
- ✓ Held the CRC Carson Watershed Forum March 29-30, 2022. Recordings can be found [HERE](#)
- ✓ Developed and rolled out multiple new watershed moment videos and press releases. All videos can be found in the [Press KIT](#).
- ✓ Begin development of the ArcGIS online map viewer with the contractor, and conducted a Scoping meeting with watershed partners to present the project and solicit feedback.
- ✓ Held multiple CRC Education and Floodplain group meetings
- ✓ Coordinated with Carson River Coalition (CRC) Floodplain Management, Education and Outreach and Invasive Species Working Groups to implement integrated watershed management and water quality objectives.

## Fiscal Summary:

319(h) grant award	\$119,720.00
20-058 Contract Rollover	\$17,975.00
319(h) funds expended to date	\$48,964.87
Non-federal match generated	\$110,522.47

## Project Status:

In progress. Subgrant terms 12/31/22.

I am Carson River Watershed logo and flyer for "Watershed Wednesdays" virtual events





# Westwood Neighborhood and Douglas High School NPS Outreach and LID/BMP Implementation Project

Douglas County Stormwater Management

DEP S #21-033

## **Project Partners:**

Carson Water Subconservancy District  
River Wranglers  
Douglas County High School

## **Project Location:**



Carson River Watershed: Douglas County

Subgrant Term: 5/19/2021  
- 12/31/2022



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**



## **Project Goals:**

- ✓ create a grounds management plan for Douglas High School that reduces erosion off fields and nutrients entering the storm drain.
- ✓ *Plan, coordinate and develop an education, design, and maintenance plan for a High School low impact development/pre-treatment pilot project*
- ✓ *Conduct a non-point source and conservation landscaping neighborhood workshop.*
- ✓ *Reduce NPS pollution from lawns in the Westwood neighborhood into the East Fork Carson River*

## **Project Summary:**

Douglas County, with partner support, will conduct a NPS stormwater management outreach and implementation project focusing on low impact development (LID) practices and fertilizer use management with area residents and Douglas High School students and staff. Educational outreach will be targeted to the Westwood neighborhood residents to improve NPS issues related to potential nutrient loading from lawn runoff into the East Fork Carson River. Efforts will result in awareness about water quality issues at the neighborhood scale and may result in improving localized water quality adjacent to the neighborhood. LID and BMP's will be implemented in the Westwood neighborhood and at the Douglas High School fields.

## **Project Outcomes to Date:**

- ✓ *Planning with Douglas County HS has begun to implement BMPS on the grounds and storm drain maintenance*
- ✓ *The neighborhood NPS educational workshop took place on July 14th, 2021.*
- ✓ *Developing a second workshop and neighborhood LID implementation*
- ✓ *Storm drain marking was completed by HS classes and students in the Westwood neighborhood*
- ✓ *LID and water quality education was conducted in the classroom to multiple HS classes.*

## **Fiscal Summary:**

319(h) grant award	\$28,776.00
319(h) expended to date	\$3,752.78
Non-federal match generated	\$7,968.82

**Project Status:** In progress, contract terminates 6/30/2023

# Valuing and Protecting our Tahoe Watershed

Great Basin Outdoor School

DEP 21-007

## **Project Partners:**

Tahoe Environmental Research Center  
Galilee Camp and Conference Center  
Marine Research and Education, Inc.  
Nevada Fish & Wildlife, and more

## **Project Location:**



State-wide

Primarily Lake Tahoe, Truckee  
and Carson River Watershed

STATEWIDE



Subgrant Term:

7/28/2020 -

12/31/2022



## **Project Goals:**

- ✓ Promote critical thinking about local environmental issues including water quality.
- ✓ Promote personal responsibility for improving and protecting the environment.
- ✓ Increase awareness of point and nonpoint source pollution.
- ✓ Promote student academic achievement and support curriculum standards.
- ✓ Promote interpersonal relationship and social skills and community involvement.

## **Project Summary:**

This program offers youth and adults an opportunity to learn as they participate in a four-day residential camp with field studies that build academic and social skills and develops understanding of the natural world. Fifth and sixth grade classes, high school and college students, and teachers study local ecology with standards-based lessons at Camp Galilee, Lake Tahoe during spring, fall, and winter programs. Service-learning projects and place-based education help to instill and develop a commitment to sustainability and a connection to the earth.

## **Project Outcomes:**

- ✓ Hosted the annual Project WET Teacher Training at the River School Farm and Camp Galilee, Lake Tahoe
- ✓ Spring and Summer break Adventure day camps were held where students learn about the Tahoe Watershed
- ✓ Truckee River Snapshot Days was conducted with St. Teresa School
- ✓ Tahoe Environmental Research Boat trips resumed with schools and students to learn about Lake Tahoe water quality
- ✓ The winter ecology and snowshoeing program commenced after being shut down by COVID, hosting 550 students.
- ✓ Education staff trained in preparation for Adventure Summer camp
- ✓ Public outreach was conducted through multiple platforms and social media

319(h) grant award	\$76,209.00
319(h) carry forward	\$18,360.00
319(h) Expended to date	\$82,373.60
Non-federal match generated	\$140,411.56

Related Project Weblinks: <http://www.greatbasin-os.org/>

## **Project Status:**

In progress at 75% completion, 12/31/2022 termination

Snowshoe trip and  
TERC Research boat  
trip



# Southern Nevada Water Education Resource Training Hub

Get Outdoors Nevada

#22-036

## **Project Partners:**

Lake Mead National Rec Area  
Bureau of Reclamation  
Clark Co Wetlands Park | Springs Preserve  
Clark County School District  
Southern Nevada Water Authority

## **Project Location:**

*Clark County and Statewide*



## **Project Goals:**

- *Increase interest and knowledge in water science and NPS pollution related issues in Nevada program audiences.*
- *Increase knowledge of Nevada's water management organizations and practices among Nevada program audiences.*
- *Increase willingness to use water science and NPS pollution related issue to teach core content standard among Nevada teachers.*
- *Program participants will increase volunteerism in Nevada's outdoor spaces.*
- *Increase access to water science and NPS pollution related curriculum and materials in Nevada.*

## **Project Summary:**

The project aims to increase specific knowledge, awareness, and educational resources related to Nevada's water resources and nonpoint source pollution (NPS) issues among Nevada educators statewide. GON will work with the Clark County School District and regional partners to create a Water Education Resource and Training Hub in southern Nevada, focused on promoting and delivering curriculum, information, and trainings on the Project Wet and Discover A Watershed courses

## **Project Outcomes to date:**

- Conducted two teacher Project WET trainings at Springs Preserve [Pictures](#)
- Developing online resource curriculum
- Planning additional Project WET teacher training

## **Fiscal Summary:**

319(h) funds	\$32,665.50	Related Project Weblinks: <a href="http://www.getoutdoorsnevada.org">www.getoutdoorsnevada.org</a>
319(h) expended	\$4,790.95	
Nonfederal match to date	\$787.68	

**Project Status:** Project in progress and on tract. 25% complete  
Subgrant expires 6/30/2023



# Chalk Creek Stabilization and Erosion Control at Sapphire Ridge

City of Reno

DEP S 21-031

## **Project Partners:**

CDM Smith Project Consultants

## **Project Location:** ★

Truckee River Watershed  
Chalk Creek, Washoe County

## **Project Goals:**

- ✓ *Stabilization of eroding streambanks and incised streambed*
- ✓ *Significant reduction in pollutant loading for nitrogen, phosphorus, and sediment.*



## **Project Summary:**

This project includes planning, design, and implementation of stream stabilization Best Management Practices along a segment of Chalk Creek. The original effort to stabilize the drainage failed resulting in severe channel incision, bank erosion, and discharge of pollutants that contribute to impairments on the main stem of the Truckee River.

## **Project Outcomes:**

- ✓ *100 percent construction design plans that utilize measures described in the 2020 Watershed Plan for Tributaries to the Truckee River*
- ✓ *Construction of selected Best Management Practices on Chalk Creek.*

## **Fiscal Summary:**

319(h) funds	\$125,000.00
Non-federal match funds	<u>\$125,000.00</u>

Total Project Cost	\$250,000.00
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<b><u>Project Status:</u></b>	Started
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Related Project Weblinks:

[Watershed Plan for Tributaries to the Truckee River](#)



Photo Credit: City of Reno

# Clark County NPS Pollution Prevention Education Program, 2020

Clark County Water Reclamation District

DEP S 20-056

## Project Partners:

Las Vegas Wash Coordination Committee

## Project Location: ★

Colorado River Region

Las Vegas Wash, Clark County

## Project Goals:

- ✓ Provide educational awareness to citizens of Clark County about NPS Pollution
- ✓ To encourage behavioral change
- ✓ To provide information about stormwater management to residents and business owners



## Project Summary:

This project continued previous NPS grant funded efforts to educate residents and business owners about NPS Pollution and stormwater management. It includes further development and implementation of presentations, workshops, educational material, and advertising material that builds on the "Only Rain in the Storm Drain" message.

## Project Outcomes to Date:

- ✓ Outreach workshops and presentations.
- ✓ Placement of Outreach Kiosks demonstrating stormwater management methods for various land uses.
- ✓ Purchase of "Only Rain in the Storm Drain" Take-Home items to be distributed during workshops and presentations.
- ✓ Translation of Nonpoint Source Pollution information pamphlets from English to Spanish.
- ✓ Use of digital billboard advertising to reach diverse audiences.
- ✓ Publication of a Kids Stormwater Workbook.
- ✓ Development of "Stormwater Pollution Awareness Month" program elements, held in October in collaboration with Nevada Division of Transportation, Las Vegas Wash Coordination Committee, and Southern Nevada Water Authority.

## Fiscal Summary:

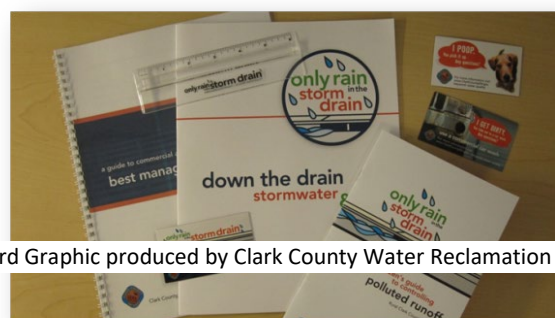
319(h) funds	\$62,000.00
Non-federal match funds	\$62,000.00
Total Project Cost	\$124,000.00

## Related Project Weblinks:

[Only Rain in the Storm Drain](#)

## Project Status:

Completed



BMP Manuals, NPS Outreach Materials and Billboard Graphic produced by Clark County Water Reclamation District.

# Evaluation/Prioritization of Middle Carson River Projects with Associated Minor Repairs

Dayton Valley Conservation District (DVCD)

DEP S #22-019

## **Project Partners:**

Carson Water Subconservancy District  
Lyon County  
Nevada Conservation District Program  
Nevada Division of State Lands  
Dayton Valley Landowners  
Nevada DOT  
RO Anderson Engineering

## **Project Location:**

Northern Nevada: Carson River Watershed

## **Project Goals:**

- ✓ Evaluate existing Middle Carson River (MCR) projects and prioritize necessary maintenance and repairs to address nonpoint source pollution.
- ✓ Perform minor maintenance activities (as able) on existing MCR projects based on the list of prioritized projects in need of repair.

## **Project Summary:**

In 2015, DVCD conducted a thorough evaluation of all projects previously completed by the Conservation District. In 2017, the Middle Carson River experienced two flood events resulting in changes to the data obtained during the 2015 project. Dayton Valley Conservation District will conduct field inspections, photograph, and document current project conditions, and will quantify damages and the associated amount of required maintenance. Dayton Valley Conservation District will compare data collected to those obtained during the 2015 monitoring project. This project will incorporate minor repairs, weed control, and revegetation as deemed necessary, and during periods of appropriate water levels.

## **Project Outcomes (ongoing):**

- Site inspections, with photographs and measurements of projects, including all damage as compared to original construction.
- Evaluation of each project site to determine whether repairs are necessary and the nature of the repairs.
- Work with professional/agency personnel, private landowners, and the DVCD board to establish list of priority repairs.
- Perform minor repairs and associated weed control/revegetation, as needed (based on priority) and able (based on cost and river conditions).

## **Fiscal Summary:**

319(h) funds  
Non-federal match funds  
Related Project Weblink

\$50,000.00

\$141,800.00

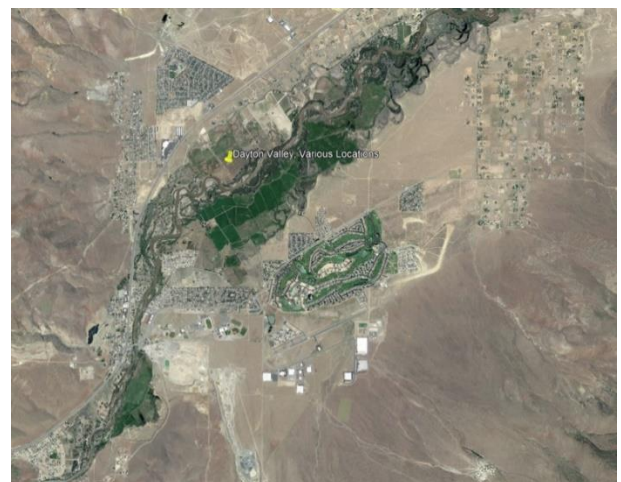
<https://daytonvalleycd.wixsite.com/daytonvalleycd/home>

## **Project Status:**

Subgrant effective 10/18/2021 - 6/30/2023



Subgrant Term: 10/18/2021  
- 6/30/2023



# Initiatives to Reduce NPS Pollution in Southern Nevada, 2022

Southern Nevada Water Authority

DEP S 22-051

## **Project Partners:**

Clark County Flood Control District  
Las Vegas Wash Coordination Committee

## **Project Location:** ★

Colorado River Region  
Las Vegas Wash, Clark County

## **Project Goals:**

- ✓ Reduce sediment and nutrient loadings to the Las Vegas Wash
- ✓ Improve floodplain habitat
- ✓ Increased knowledge about nonpoint source pollution



## **Project Summary:**

This project continues previously NPS grant funded efforts to implement objectives of the Las Vegas Wash Comprehensive Adaptive Management Plan which includes revegetation, erosion control, water quality improvement and public education and outreach efforts. Replacing invasive weeds with native vegetation on the wash's floodplain is a major component of this project. The project includes magnet school field trips, including virtual field trips utilizing SNWA produced videos in the event pandemic impacts prevent in-person learning. New for 2022 are Teacher Trainings at the Springs Preserve, utilizing the Project Watershed Education for Teachers (PWET) platform. Two PWET trainings will be conducted oriented on water resources, quality, conservation, and sustainability.

## **Project Outcomes:**

- ✓ Up to 10 acres to be planted with 7,500+ native trees and shrubs over one event.
- ✓ 200-500 volunteers are expected to participate a 2023 Spring Green-Up Event.
- ✓ Completion of three magnet school field trips, and two PWET Teacher Trainings.

## **Fiscal Summary:**

319(h) funds	\$55,000.00
Non-federal match funds	\$94,500.00
Total Project Cost	\$149,000.00

Related Project Weblinks:  
<https://www.snwa.com/>

## **Project Status:**

Started



A Mabel Hoggard Magnet School student tests the pH level of a water sample. Photo Credit: SNWA



# Blanchard Bank Restoration Project – West Walker River

Mason Valley Conservation District DEP S 22-031

## Project Partners:

Private Property Owner  
Nevada Tahoe Conservation District

## Project Location:

West Walker River,  
Lyon County

## Project Goals:

- ✓ Bank Stabilization
- ✓ Reduce sediment and nutrient loadings to the Walker River
- ✓ Protect infrastructure

## Project Summary:

Mason Valley Conservation District (MVCD) identified 450 linear feet of unstable riverbank on the West Walker River in Lyon County. Currently, there is a 150 foot section with a 9 foot vertical drop on the west riverbank that is eroding and threatening to breach an access road. Just downstream on the east riverbank, there is a 300 linear feet section of 8 foot high bank that is undercutting a pasture fence. MVCD will plan and engineer for all 450 linear feet, however, only the 150 foot section will be constructed under this contract. The 150 foot section will be restored utilizing a combination of rock structures, grading, revegetation and bioengineering practices to stabilize the bank. The project will result in a more stable river bank that contributes less sediment downstream.

## Project Outcomes:

- ✓ Approximately 450 linear feet of unstable banks will be planned and engineered
- ✓ 150 linear feet will be restored
- ✓ Pollutant Load Reductions are estimated at 1,010 tons/year of sediment will be kept out of the River

## Fiscal Summary:

319(h) grant award	\$ 86,000.00
Non-federal match funds generated	<u>\$ 86,856.00</u>
Total Project	<u>\$172,952.04</u>

Project Status: In Progress, design phase



# River Fork Ranch Bank Restoration

*The Nature Conservancy (TNC)*

DEP S #20-064

## Project Partners:

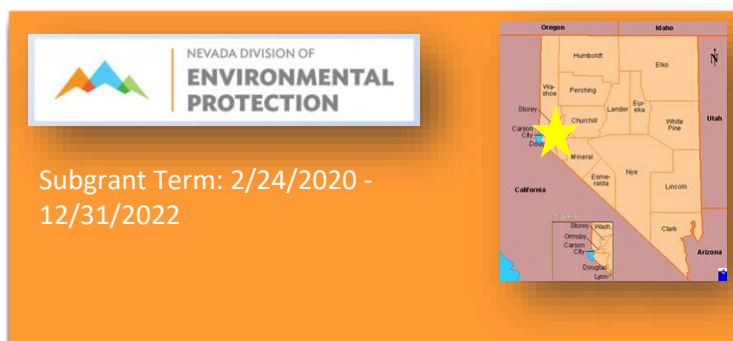
Patagonia  
Ranch One  
Carson Water Subconservancy District  
Harley-Davidson Financial Services  
Washoe Tribe of Nevada and California  
River Wranglers

## Project Location:

*Northern Nevada: Carson River Watershed*

## Project Goals:

- ✓ Implement native vegetation establishment and bioengineering techniques to reduce streambank erosion along the Brockliss Slough and West Fork Carson River.
- ✓ Reduce sediment, filter nutrients, such as nitrogen and phosphorus, and minimize soil erosion on the banks and bed of the Carson River.



## Project Summary:

The Nature Conservancy implemented streambank stabilization/bioengineering techniques utilizing willow cuttings, coir logs, and erosion cloth at the River Fork Ranch Preserve along 700 linear feet of the Brockliss Slough and 300 linear feet of the Home Slough which connects to the West Fork Carson River. Approximately 1,028 feet of fencing was also installed along the Home Slough areas adjacent to the bank bioengineering. Approximately 750 cottonwood trees and 200 willows were harvested and planted along the Brockliss Slough and West Fork Carson River. Six volunteer events engaged 35 individuals, during which groups helped plant and apply mulch around 2,000 native bareroot shrubs. Herbivory issues throughout the revegetated areas resulted in vole guards being installed around the plantings.

## Project Outcomes:

- TNC implemented cost-effective streambank stabilization techniques using native willows, trees, and shrubs to enhance riparian habitat, mitigate severe erosion, restore geomorphic form and function, and improve water quality.
- TNC showcased different planting techniques and restoration efforts to landowners, ranchers, land managers, the local community, and visitors to the Carson Valley.
- TNC hosted and coordinated six volunteer events (as COVID-19 precautions allowed) to educate community participants on nonpoint source pollution and ways streambank stabilization can improve water quality. Volunteers assisted with planting native willows, cottonwood trees, and shrubs to help reduce soil erosion and minimize impacts of local nonpoint source pollution.
- Photo monitoring and documentation of different planting techniques were collected twice per year.



## Fiscal Summary:

319(h) grant award

\$ 30,451.00

Non-federal match

\$ 49,197.00

Related Project Weblink

<https://www.nature.org/en-us/get-involved/how-to-help/places-we-protect/river-fork-ranch/>

## Project Status:

Project Completed 2/2/2022.

# Watershed Heroes

Nevada Outdoor School

DEP S 22-032

## Project Partners:

Humboldt, Elko and Lander Counties  
School Districts  
Cities of Elko and Winnemucca

## Project Location: ★

Humboldt River Basin  
Humboldt, Elko and Lander Counties

Subgrant Term:  
1/31/2022 -  
12/31/2022



## Project Goals:

- ✓ *Provide nonpoint source pollution education in a field setting within the watershed in which students reside*
- ✓ *Encourage students to take actions that express care and respect for their watershed*

## Project Summary:

Nevada Outdoor School will provide outdoor field experiences located in and focused on the Humboldt River Basin Watershed. These experiences will empower students to become committed to lessen their negative impact on the natural world whenever possible.

## Project Outcomes to Date:

- ✓ *Completion of a Field Experience Curriculum outlining standards to be met*
- ✓ *Creation of extension activities for teachers*
- ✓ *Training of Program Coordinators and AmeriCorps staff*
- ✓ *Implementation of Field Experiences to 1000 2<sup>nd</sup> grade students*

## Fiscal Summary:

319(h) funds	\$10,418.00
Non-federal match funds	<u>\$10,440.00</u>
Total Project Cost	\$20,858.00

Related Project Weblinks:  
[Nevada Outdoor School](https://www.nevadano.org/)

## Project Status:

Near Completion



# Public Restroom Installation and Urban River Education

One Truckee River

DEP S 22-011

## **Project Partners:**

*Truckee Meadows Water Authority, Truckee River Fund, Washoe County Parks and Open Space, Washoe County Health District, City of Reno, Renown Health, Nevada Land Trust, Karma Box Project, Reno Initiative for Shelter and Equality, and Keep Truckee Meadows Beautiful*

## **Project Location:** ★

*Truckee River Watershed  
City of Reno  
Washoe County*

Subgrant Term:  
7/28/2021-  
12/31/2022



## **Project Goals:**

- ✓ *Installation of a public restroom along the Truckee River urban core to protect water quality, drinking water sources and streamside habitat*
- ✓ *Conduct outreach and education to unsheltered persons along the Truckee River*

## **Project Summary:**

This project includes installation of a second Portland Loo public restroom on the Truckee River near camps occupied by unsheltered persons.

## **Project Outcomes:**

- ✓ *Installation of Portland Loo Number Two at Brodhead Park on the Truckee River*
- ✓ *Increased capacity of restrooms along the river corridor*
- ✓ *Three months minimum of outreach and education provided to homeless river users*
- ✓ *A reduction in trash and human feces along the river corridor*

## **Fiscal Summary:**

319(h) funds	\$119,920.00
Non-federal match funds	<u>\$122,333.00</u>
Total Project Cost	\$242,253.00

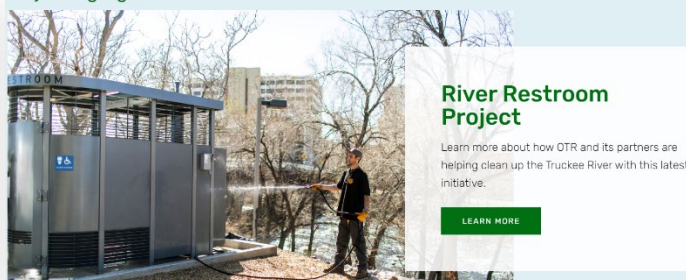
Related Project Weblinks:

[One Truckee River](#)

## **Project Status:**

Near Completion

## **Project Highlight**



Portland Loo Installation at Brodhead Park, Reno, NV

Photo Credit: One Truckee River



# Watershed Education Initiative

Sierra Nevada Journeys (SNJ)

DEP S #22-035

## Project Partners:

Washoe County School District  
Nevada Department of Wildlife  
The Nature Conservancy  
Project Learning Tree  
Truckee River Fund  
Carson Water Subconservancy District

## Project Location:

Northern Nevada: Truckee and Carson Watersheds



Subgrant Term: 1/12/2022-  
12/31/2022



## Project Goals:

- ✓ Deliver watershed-based outdoor science education to 2,700 K-8th grade students, with at least 50% from Title 1 schools, through first-hand experiences with regional watershed.
- ✓ 100 teachers will receive classroom lesson extensions to reinforce SNJ-directed lessons.
- ✓ Increase students' sense of stewardship and help reduce nonpoint source pollution.

## Project Summary:

Sierra Nevada Journeys continues to successfully implement the Watershed Education Initiative through in-person class lessons and field trips which has helped to mitigate academic regression and education gaps caused by COVID and its aftermath. The Initiative inspired students to learn about their local watersheds and nonpoint source pollution which empowered them to take care of their local water sources. In this reporting period, **1,323 students and 45 educators** participated in the Watershed Education Initiative. Using the SNJ in-person and field-based model, the Watershed Education Initiative curriculum included lessons on watersheds, nonpoint source water pollution, water quality, the water cycle, riparian ecosystems and habitats, living systems, weathering and erosion within the watershed, and renewable/non-renewable resources. The curriculum is aligned to Nevada educational standards and the North American Association for Environmental Education's Guidelines for Excellence, as well as Next Generation Science Standards and Common Core State Standards.

## Project Outcomes:

- 1,323 students and 45 educators participated in spring 2022.
- Live in-person programming provided to school districts in Washoe, Douglas, and Lyon Counties.
- Elementary schools from Carson, Douglas, Lyon, Storey, and Washoe County School Districts were recipients of e-blasts.

## Fiscal Summary:

319(h) funds \$73,143.00

Non-federal match funds \$73,143.00

Related Project Weblink: [www.sierranevadajourneys.org](http://www.sierranevadajourneys.org)

Project Status: Subgrant effective 1/12/2022 - 12/31/2022



# Riparian Restoration of the Pitchfork Unit at Walker State Recreation Area – Phase I

Nevada Division of State Parks

## **Project Partners:**

Walker Basin Conservancy

## **Project Location:**

East Walker River,  
Lyon County

## **Project Goals:**

- ✓ Reduce sediment and nutrient loadings to the Walker River
- ✓ Decrease nitrogen in the soil
- ✓ Lower long-term herbicide usage

## **Project Summary:**

Nevada Division of State Parks seeks to restore the native Cottonwood Gallery and understory in the natural floodplain. The area was formerly converted to agricultural use and dynamic riparian processes were negatively affected. As the fields have gone out of production, invasive weeds have replaced native and cultivated vegetation. The soil has a high nitrogen content and is unstable which causes increased sediment load into the Walker River during weather events and flooding episodes.

## **Project Outcomes:**

- ✓ Establish native vegetation on bare soil with the floodplain
- ✓ Establish Cottonwood and Willow trees in the riparian corridor
- ✓ Nitrogen reduction in soils through active and passive restoration techniques

## **Fiscal Summary:**

319(h) grant award	\$ 100,000.00
<b>Non-federal match funds generated</b>	<b>\$ 124,800.73</b>
<b>Total Project</b>	<b>\$ 224,800.73</b>

**Project Status:** In Progress, implementation phase



Subgrant Term: 6/04/2020 -  
12/31/2022



# Building Spatial Awareness of NPS Pollution in the Truckee Meadows

Truckee Meadows Regional Planning Agency

DEP S 19-030

## Project Partners:

TMRPA  
Western Regional Water Commission  
Washoe County  
Cities of Reno and Sparks  
Truckee Meadows Water Authority  
One Truckee River, other stakeholders

## Project Location: ★

Truckee Meadows in Washoe County



Subgrant Term: 3/03/2020 -  
6/30/2023



## Project Goals:

- ✓ Create and maintain a geospatially-enabled data manipulation tool designed to enhance awareness of factors contributing to nonpoint source pollution in the Truckee Meadows, specifically looking at the existing and future land use development.
- ✓ This online GIS-based tool will be utilized to inform development of the Watershed Management Plan and the larger Source Water/Watershed Protection Planning effort.

## Project Summary:

TMRPA will build and maintain GIS data related to water planning in the Truckee Meadows. The tool will assist local planning staff in decision-making by providing a reliable set of data and tools which describe potential for NPS pollution to the water supply and surface waters. The tool is found at [washoecountycleanwater.org](http://washoecountycleanwater.org) and the NPS component paid for is part of a much larger effort: the 2020 Integrated Source Water and 319(h) Watershed Protection Plan for Public Water Systems and the Truckee River in the Truckee Meadows..

## Project Outcomes:

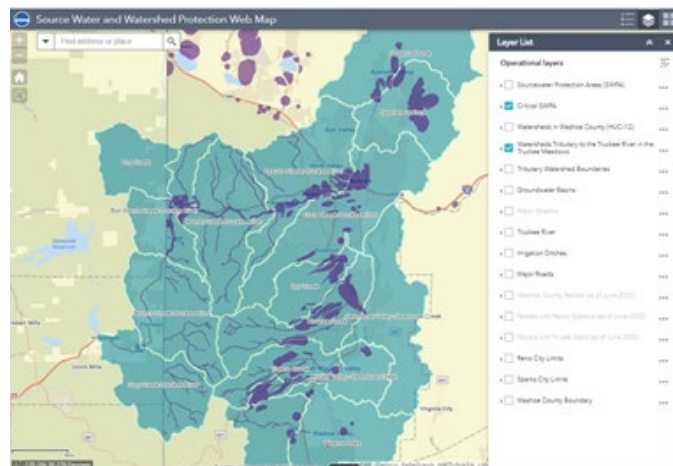
- Created GIS database tool to support analytics of water-related issues.
- Gathered relevant data to add to GIS layers germane to land use, NPS and source water issues.
- Collaborated with stakeholders to ensure their needs are being met by data sets.
- Maintained and updated online tool.
- Took on responsibility to house and maintain online tool in perpetuity as [washoecountycleanwater.org](http://washoecountycleanwater.org) as approved by TMRPA's Board.

## Fiscal Summary:

319(h) funds	\$25,002.00
Nonfederal match	\$25,036.00
Total Project Cost:	\$50,038.00

**Project Status:** Ongoing

Related Project Weblinks: [washoecountycleanwater.org](http://washoecountycleanwater.org)



## Virgin River Coalition Watershed Coordination

The Nature Conservancy

DEP S 21-020

### **Project Partners:**

City of Mesquite  
River's Edge West  
Kokapelli ATV Club  
Nevada Division of Wildlife  
Deborah Campbell & Associates

### **Project Location:** ★

Lower Virgin River Watershed  
Lower Virgin River, Clark County

Subgrant Term:

2/12/2021 -

12/31/2022



### **Project Goals:**

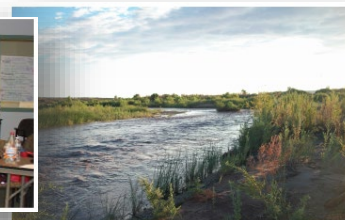
- ✓ Enhance coordination between the Virgin River Coalition, Agricultural Users, and Local Municipalities to address NPS pollution in the Lower Virgin River
- ✓ Increase coordination capacity of the Virgin River Coalition to develop proposals and implement projects that support the Coalition's mission
- ✓ Maximize community awareness of Lower Virgin River resources and challenges

### **Project Summary:**

Through the hiring of a local Watershed Coordinator, this project aims to increase coordination, collaboration, and implementation of efforts identified in the Lower Virgin River Integrated Watershed Plan that will improve the human benefits and ecological health of the Virgin River for future generations of residents, businesses, recreational users, farmers, and ranchers.

### **Project Outcomes:**

- ✓ Organization of at least two educational community events.
- ✓ Coordination of at least two volunteer events that improve conditions of the Lower Virgin River.
- ✓ Logistical support and planning for at least two Virgin River Coalition Workshops.



### **Fiscal Summary:**

319(h) funds	\$41,625.00
Non-federal match funds	<u>\$41,625.00</u>
Total Project Cost	\$83,250.00

Related Project Weblinks:  
[TNC - Nevada Chapter](#)

### **Project Status:**

Ongoing





# Rosewood Nature Study Area: Phase II

Truckee Meadows Parks Foundation (TMPF)

DEP S #22-039

## Project Partners:

City of Reno  
Nevada Department of Wildlife  
Lahontan Audubon Society

## Project Location:

Northern Nevada: Truckee River Watershed –  
Steamboat Creek

## Project Goals:

- ✓ *Restore riparian and wetland habitats along Boynton Slough and Steamboat Creek to improve water quality, stabilize eroding banks, reduce erosion, and increase riparian and wetland plant species within the Rosewood Nature Study Area.*
- ✓ *TMPF will lead community members in at least two educational and restoration volunteer events, leveraging 150 volunteers and 500 volunteer hours (spring and fall 2022).*



Subgrant Term: 2/16/2022 -  
12/31/2022



## Project Summary:

The Rosewood Nature Study Area is a unique wetland capable of sustaining rich biodiversity and is located along Steamboat Creek in Reno, Nevada. The 219-acre former golf course property is overrun with invasive plant species listed on the Nevada Noxious Weed List. These invasive plant species are known to outcompete and exclude most native plants and offer little in the form of soil stabilization or wildlife habitat. Furthermore, Steamboat Creek and Boynton Slough run contiguous with the parcel, therefore, restoration of this land reduces the potential for weed spread to the Truckee River watershed. The objectives of this project are to enhance the water quality of the Rosewood Nature Study Area, and to increase the capacity of park-based educational and recreation programs. TMPF will treat 12,000 linear feet of river corridor (40 acres) during the operational year using a combination of woody and herbaceous native wetland and riparian species using plant plugs and seeds to restore the area after noxious weed removal.

## Project Outcomes (ongoing):

- TMPF has treated 4,399 linear feet of streambank through a combination of invasive species removal and the establishment of stabilizing native species. Woody native plugs include coyote willow, chokecherry, wild rose, and buffaloberry. A wetland seed mix with a variety of herbaceous plants, such as rushes and grasses, was also broadcasted.
- TMPF hosted the Spring Plantapalooza planting event on April 23<sup>rd</sup>, 2022. Twenty-seven volunteers (totaling 81 volunteer hours) along with TMPF staff and AmeriCorps members were able to plant 945 native plants in wet meadows, along riparian areas, and in upland areas along irrigation lines. The Society for Ecological Restoration club at University of Nevada, Reno assisted in invasive removal at the nature study area to help ensure plant survival, totaling 24 volunteer hours.



## Fiscal Summary:

319(h) funds \$25,000.00

Non-federal match funds \$25,000.00

Project Weblink: <https://www.tmparksfoundation.org/>

Project Status: Subgrant effective 2/16/2022 - 12/31/2022

# Wáta Šému: East Carson River Bank Stabilization and Restoration

Washoe Tribe of Nevada and California (WT)

DEP S #21-029

## **Project Partners:**

Carson Water Subconservancy District  
Carson Valley Golf Course  
Cardno  
Bureau of Indian Affairs  
U.S. Fish and Wildlife Service  
Environmental Protection Agency

## **Project Location:**

Northern Nevada: Carson River Watershed



Subgrant Term: 4/28/2021 -  
12/31/2022



## **Project Goals:**

- ✓ *Restore Washoe Tribal Lands, waterways, and riparian zones using a research-based adaptive restoration approach and implement bioengineering techniques to stabilize an eroding bank on the East Fork Carson River.*
- ✓ *Reduce sediment loading, protect Washoe Tribal Lands and cultural resources, reduce the impacts of anthropogenic hydromodifications, increase species diversity and habitat, and improve ecosystem health.*

## **Project Summary:**

The Washoe Tribe of Nevada and California is actively restoring a 350-foot stretch of the East Fork Carson River to prevent ongoing erosion and nonpoint source pollution through stabilization, riparian planting/seeding, and ecosystem recovery. This project targets prevention of further degradation of an eroding stream bank by laying back a five-to-six-foot tall cutbank to a gentler slope (7:1 – 12:1), placing large rock, and planting a combination of trees, shrubs, grasses, rushes, forbs, and sedges endemic to the area. Obligate riparian species will be planted near the base of bank and facultative riparian species will be planted near the top. Seeds will also be broadcast by hand across the site and jute matting will be installed between tree and shrub contours to protect the seeds.

## **Project Outcomes (ongoing):**

- Shaping vertical bank to gentle slope (7:1 to 12:1 depending on location).
- Placing large rock at north and south ends of project to protect disturbed/undisturbed transition.
- Cutting tailwater ditch at top of slope to provide occasional supplemental irrigation.
- Planting over 900 shrubs and trees along sloped bank as well as broadcast seeding rhizomatous grasses, rushes, forbs, and sedges.
- Installing erosion control matting to temporarily stabilize sloped bank as vegetation establishes.

## **Fiscal Summary:**

319(h) funds  
Non-federal match funds  
Related Project Weblink

\$100,000.00

\$100,000.00

<https://washoetribe.us/>

## **Project Status:**

Subgrant effective 4/28/2021 - 12/31/2022



# Genoa West Fork Carson River Bank Stabilization Phase 2

Carson Valley Conservation District (CVCD) DEP S 21-027

## **Project Partners:**

Carson Water Subconservancy District  
Private Landowners

## **Project Location:**

Carson River Watershed, Douglas County

## **Project Goals:**

- ✓ *Restore and stabilize 1 ¾ mile reach of the West Fork Carson River using a multitude of bioengineering and revegetation practices*
- ✓ *Mitigate erosion, enhance wildlife habitat and improve water quality*
- ✓ *Complete geomorphological study of reach from Carson to Genoa Lane to Washoe Tribal Property*
- ✓ *Develop final complete engineer plans*
- ✓ *Implement highest priority restoration project*
- ✓ *Utilize drone data to monitor and track success*

## **Project Summary:**

The Carson Valley Conservation District will restore vertical cutbanks on the West Fork of the Carson River in Genoa that are approximately 1 and ¾ of a mile long and 12 to 15 feet high. The overall goal of the project is to use a combination of traditional rip-rap and bioengineering techniques to stabilize the soil, improve water quality and re-establish desirable vegetation for wildlife

## **Project Outcomes:**

- ✓ *2,550 ft of riverbank was restored and stabilized on the West Fork Carson River*
- ✓ *Implemented restoration projects in Phases 2*
- ✓ *Improve water quality and wildlife habitat, and restore riparian function of the reach*
- ✓ *Outreach to landowners along the Carson River and develop more partnerships within the watershed and identify potential restoration sites for future projects.*

## **FINAL Fiscal Summary:**

319(h) grant award	\$ 157,500.00
319(h) funds expended to date	\$157,500.00
Non-federal match	\$ 893,347.68

**Project Status:** Completed and closed out



Subgrant Term: 3/31/2021 -  
6/30/2023

