2026-2031 Nonpoint Source State Management Plan

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Bureau of Water Quality Planning

NEVADA DIVISION OF
ENVIRONMENTAL
PROTECTION

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Executive Summary: Alignment with EPA-319 Guidelines

The Nevada Draft 2026–2031 Nonpoint Source Management Plan demonstrates strong alignment with the seven key components identified in Appendix A of the 2024 EPA §319 Guidelines. First, the Plan articulates clear goals and strategies for restoring and protecting water quality across the state. These are grounded in a vision and mission (Chapter 1.2) and supported by strategic objectives, milestones, and timeframes laid out in Chapters 4 through 6. For example, annual milestones include the completion of one to two watershed-based plans per year, the identification of three new project sites for implementation, and the submission of at least one EPA "success story" annually documenting pollutant load reductions or improved waterbody condition.

Second, the Plan provides a detailed inventory of NPS pollutant sources and categories relevant to Nevada, including erosion, hydrologic modifications, urban development, and legacy mining (Chapter 2.1 and 2.3). Prioritization of watersheds for protection and restoration is addressed through a multi-criteria approach involving stakeholder input, water quality data, and documented environmental factors (Chapters 3.1 and 3.2). Annual milestones to support this prioritization include updates to the restoration prioritization matrix and expanded application of tools such as the EPA Recovery Potential Screening Tool.

Third, the Plan outlines specific management measures to control NPS pollution—ranging from riparian restoration and upland vegetation improvements to urban BMPs. These measures are detailed by pollutant type and watershed and include considerations for hydrologic function and erosion control (Chapters 2.3 and 4). Tangible annual targets may include stabilizing 1,000 feet of streambank, installing 50 acres of vegetative buffers, or conducting five on-site BMP assessments to evaluate maintenance and function.

Fourth, Nevada's approach is deeply rooted in watershed-based planning. It integrates both EPA-approved nine-element and alternative watershed plans and includes procedures for updating existing plans as conditions change (Chapters 1.4 and 3). Annual targets here include ensuring all newly developed plans meet EPA requirements and updating at least one existing plan each year.

Fifth, the Plan emphasizes coordination with state and federal agencies, local governments, conservation districts, and private landowners. Chapter 5 outlines the structure for interagency and stakeholder collaboration. Annual milestones supporting this effort include holding coordination meetings throughout the year with key partners and hosting at least one technical outreach workshop for stakeholders to advance water quality improvement efforts throughout the State.

Sixth, the administrative structure of the Plan (Chapter 6.1) ensures sound financial management, transparent project selection, and compliance with EPA reporting requirements. It outlines procedures for project solicitation, subawards, and tracking through systems like GRTS. Tractable goals include updating proposal evaluation criteria annually, documenting all project expenditures quarterly, and maintaining 100% compliance with GRTS reporting.

Finally, the Plan commits to evaluating program success using environmental and functional performance measures (Chapter 6.3). It includes a structure for adaptive review and continuous improvement, consistent with the EPA's five-year update requirement (Chapter 1). As part of this process, annual performance reviews will assess the achievement of short-term milestones and adjust future priorities accordingly.

In summary, the Nevada Draft 2026–2031 Nonpoint Source Management Plan is a comprehensive document that effectively meets the expectations set forth in the EPA's 2024 §319 Guidelines. It provides an actionable framework for addressing nonpoint source pollution across diverse watersheds in Nevada. Through measurable goals, targeted strategies, and robust administrative processes, this Plan positions the state to operate a strong and effective NPS program for the duration of the planning period and beyond.

CHAPTER 1: INTRODUCTION

1.1 NPS DEFINED AND PURPOSE OF DOCUMENT

Unlike point source pollution from industrial pipes or sewage treatment plants, NPS pollution comes from many diffuse sources such as water from rain, snowmelt, or irrigation flows over the landscape. The water picks up natural and man-made pollutants from lawns, roads, parking lots and fields and deposits them into rivers, streams, lakes, wetlands and groundwater. Typical NPS pollutants include sediment, fertilizers, salts, bacteria, metals, petroleum products and organic materials.

Addressing NPS pollution in Nevada is challenging due to legacy problems of hydrologic modification, riparian habitat destruction, and flow alteration; as well as contemporary issues related to urban runoff and other land uses. In addition, Nevada is the driest state in the nation and solutions to nonpoint source pollution are often exacerbated by the dry conditions throughout. As the lead agency for addressing nonpoint source pollution in Nevada, the Nevada Division of Environmental Protection (NDEP) coordinates, collaborates and builds key partnerships with a wide variety of local, state and federal agencies, tribes, environmental organizations, educational institutions and private landowners to effectively address these impacts.

The 2026–2031 Nevada Nonpoint Source Management Plan (hereafter referred to as the "Plan") establishes how NDEP will work to address NPS pollution over the next five years. Funding for Nevada's Nonpoint Source Program is provided entirely through federal grants under Section 319(h) of the Clean Water Act. The State of Nevada does not provide dedicated state funding to support the implementation of this program. Accordingly, the activities, goals, and outcomes described in this Plan are contingent upon the continued availability of federal funds at or near current levels. Even with sustained funding, rising implementation costs—due to inflation, labor, and material expenses—may limit the scope and scale of program accomplishments over the five-year planning period.

The Plan formalizes Nevada's approach for protecting and improving water quality and outlines the short- and long-term objectives, milestones, and timeframes that will guide program activities. Reductions in NPS pollution will be accomplished through partnerships and the combined use of technical and financial assistance to plan and implement coordinated water quality improvement projects.

The 2026–2031Plan is based on the implementation of an adaptive management strategy that includes identifying NPS issues, developing relevant partnerships, collaborating with partners to prioritize watershed improvement actions, implementation of projects, and evaluation of efforts. The adaptive management strategy is one that will be implemented at different levels of organization including at the state-wide programmatic level down to the watershed and local community levels. As such, the Plan incorporates "Key Components of an Effective State Nonpoint Source Management

Program" as well as the relevant components of watershed-based plans as identified in the *Nonpoint Source Program and Grants Guidelines for States and Territories* issued by the U.S. Environmental Protection Agency (EPA).

NDEP takes an integrated approach to nonpoint source pollution management utilizing both internal and external programs to achieve NPS Program goals. These efforts require local involvement, active participation of local, state, tribal, and federal agencies as well as local entities and private landowners. This plan describes how components work together and areas of focus over the next five years to identify, prioritize and address NPS issues. Progress and annual strategies on the plan will be communicated in reports that will be updated/provided annually and made publicly available.

1.2 VISION, MISSION AND GOAL STATEMENTS

The vision, mission and goal statements provide the basis for implementation of Nevada's NPS Management Program over the next five years and beyond.

VISION

Nevada envisions a future where all water bodies support their beneficial uses, with impaired waters restored, and high-quality waters maintained and protected. Through adaptive and collaborative efforts, Nevada will ensure a sustainable and healthy environment for future generations.

MISSION

To enhance Nevada's water quality by identifying, preventing, and reducing nonpoint source pollution through innovative solutions, strategic partnerships, watershed-based planning, education and outreach, and community/stakeholder engagement.

GOALS

Goal #1: Establish, strengthen, and maintain effective partnerships to achieve the vision of restoring and protecting water quality across Nevada. Leverage shared resources and expertise to achieve the vision of effective water management.

Goal #2: Protect Nevada's high-quality waters by identifying and prioritizing watersheds that require preservation and implementing proactive measures to maintain standards and/or prevent degradation.

Goal #3: Systematically identify and prioritize impaired watersheds for restoration projects that enhance ecological health and maximize their beneficial uses for communities and ecosystems.

Goal #4: Leverage 319 funding and partnerships to execute on-the-ground projects and actions that lead to quantifiable improvements in water quality and measurables reductions in nonpoint source pollutants.

Note that the Vision and Mission Statements are aspirational and provide overarching guidance to the work described herein**.** To reach the general goals, the Plan outlines specific strategies, actions, and performance measures that will guide implementation over the next five years. These approaches are detailed in **Section 4** (Prioritization and Planning Restoration and Protection Work), **Section 5** (Implementation), and **Section 6** (Milestones and Metrics for Tracking Success). Together, these sections provide a structured and adaptive roadmap for achieving the goals presented above by defining how watersheds are prioritized, how projects/activities are executed, and how progress will be measured.

1.3 OVERARCHING PRINCIPLES

Managing Nevada's water resources for the benefit of people, agriculture, industry, aquatic life and wildlife requires the collective effort of local, state and federal agencies, non-governmental organizations, conservation districts, businesses, and private citizens. While addressing nonpoint source pollution is often multifaceted and complex the Nevada NPS Program operates under several overarching principles to achieve its goals and seeks to adhere to these principles in its operations and actions.

- *The NPS Management Program in Nevada is primarily non-prescriptive/regulated.* Successful NPS control projects are locally led, and effective partnerships are paramount to addressing NPS related water quality problems.

- *A variety of tools are available to address NPS related problems*- including total maximum daily load (TMDL) implementation plans, watershed-based plans, straight-to-implementation projects as well as demonstration projects. Appropriate actions are commonly determined on a site-specific basis depending on the nature of the problem and the extent of local commitment for addressing the problem.

- *NPS-related water quality impairments are often complex and difficult to address over the short term.* Therefore, this Plan focuses on incremental improvements as measured by the creation of long-term structured plans including quantitative goals for pollutant load reductions, feet of riverbank stabilized, acres of riparian areas planted or other similar performance measures. Incremental progress leads to improved watershed conditions.

- *Water quality improvements cannot be achieved without the support and participation of motivated stakeholders.* Establishing relevancy as well as demonstrating actions that can lead to successful water quality outcomes that are desirable to stakeholders is essential to nonpoint source

reductions. Thus, targeted outreach and education to stakeholders helps build a foundation whereby policies and projects that improve and sustain Nevada's limited water resources are locally valued and implemented. Education and outreach activities are conducted through watershed planning partnerships, conservation districts, and local workshops to build long-term capacity for voluntary NPS management and, when linked to watershed implementation efforts, such activities may be supported through Section 319(h) funding.

- *Leveraging indigenous knowledge presents a valuable opportunity for Nevada to enhance its abilities to reduce NPS pollution and improve water quality*. Indigenous communities possess a deep understanding of local ecosystems, including traditional land management practices that have sustained these environments for generations. By incorporating indigenous knowledge into decision-making processes, insights can be gained for sustainable resource management techniques tailored to the region's unique ecological characteristics.

- *Nevada has a diverse landscape with associated diversity in local communities.* The NPS program's work will embody the principle of inclusivity which recognizes all communities throughout Nevada will have opportunities to seek support for NPS issues through consultations, technical support, and resource allocations.

- *Addressing water quality in context of changing environmental conditions requires a proactive and adaptive approach that considers the interconnectedness between environmental dynamics and water quality.* Integrating resilience into land use planning and management practices to mitigate the potential impacts of, extreme weather events, such as fire, floods, and droughts, which can exacerbate NPS pollution will be considered in all actions.

1.4 STRATEGIC ACTION PLANS

The Plan contains a balance between the continuation of effective planning and implementation efforts to achieve load reductions and water quality improvements with efforts to identify and protect high quality waters in healthy watersheds. More specific information and details on targeted activities are provided in the following sections; however, the general strategies are listed below and follow the recommended flow for watershed work - namely development of partnerships, prioritization, and planning and implementation (with evaluation).

STRATEGY 1- INCREASE AGENCY COORDINATION AND LEVERAGE LOCAL PARTNERSHIPS

The importance of forming networks for coordinating efforts and resources is paramount to addressing the breadth of water quality issues throughout Nevada. Some partnerships—especially with local entities—have been established and continuation of these efforts will be ongoing. However, the Plan herein contains new milestones that the program hopes to achieve as the next five (5) years of water quality work proceeds. Specifically, the program aims to set tangible milestones for coordination and cooperation among NDEP's Integrated Source Water Protection

Program, U.S. Bureau of Land Management, U.S. Forest Service, Natural Resources Conservation Service, the Nevada Association of Conservation Districts, and Tribes. Additionally, coordination and work will continue to include counties, conservation districts, NDOW, NRCS, Universities, Cooperative Extension, additional NGOs (e.g., The Nature Conservancy), and regional planning entities (e.g., CWSD). Coordination with bi-state agencies—such as the Lahontan Regional Water Quality Control Board—will continue to occur where shared watersheds exist.

Under Section 208 of the Clean Water Act, Nevada has designated specific regional planning agencies responsible for areawide water quality management planning. These include Clark County for the Las Vegas Valley Hydrographic Basin, the Western Regional Water Commission (WRWC) for the Truckee River Basin, and the Carson Water Subconservancy District (CWSD) for the Carson River Basin and the Tahoe Regional Planning Agency (TRPA) for Lake Tahoe's Basin. These entities conduct regional water quality planning and coordination consistently with Nevada's Integrated Water Quality Planning Framework and serve as key partners for aligning watershed-based planning, nonpoint source management, and Section 319 implementation.

STRATEGY 2: PRIORITIZING AND PLANNING RESTORATION AND PROTECTION WORK

Currently, Nevada has three (3) approved nine-element (9-E) watershed-based plans (the Lake Tahoe TMDL, The Carson River Adaptive Stewardship Plan, the Las Vegas Wash Comprehensive Adaptive Management Plan), and two (2) accepted alternative watershed-based plans (The 2020 Watershed Management and Protection Plan for Tributaries to the Truckee River and the Gold Ranch Fire Alternative Plan). In the next five years, NDEP's NPS program will employ a multi-year approach informed by water quality data, environmental co-benefits, stakeholder interest, and leveraged funding to increase the number of EPA-approved watershed-based plans, further refining priority watersheds for both protection and restoration. NDEP will incorporate tools such as the EPA's Recovery Potential Screening Tool, EPA's Healthy Watersheds Integrated Assessments, Nevada's Integrated 305(b)/303(d) Report, and TMDLs in its multidimensional decision-making process to prioritize and plan future NPS work (Links for these tools/additional resources provided in Appendix C). NDEP will also leverage risk and vulnerability assessments (when available) to help set prioritization criteria based on factors such as the human health considerations, ecological risk, beneficial uses, adequacy of water quality monitoring data, severity of impairments, degree of improvement, and more.

NDEP will facilitate the improvement of existing watershed-based plans to meet the changing environmental conditions where needed, as well as expand the scope of plans to include more protection work per the newly updated 319 NPS Guidelines released in 2024. This strategy aims to enhance existing data and address information gaps, so NDEP has a strong foundation to execute implementation projects that maximize environmental benefits, reduce nonpoint source pollutants, and maintain unimpaired status of its waters.

STRATEGY 3: IMPLEMENTING NPS POLLUTION CONTROL AND PREVENTION MEASURES GUIDED BY 9-ELEMENT WATERSHED-BASED PLANS

Together with the CWA 319 NPS grant, NDEP will provide technical and program management support to implement on-the-ground projects targeting the reduction of NPS pollution, guided by the EPA-approved 9-E watershed-based plans or equivalent. Restoration and protection projects will be:

1) Shaped by the prioritizations laid out in action plan 2
2) executed via subawards, contracts, and direct funding requests;
3) leveraged through technical support from within NDEP or external partners; and
4) tracked and reported via EPA's Grants Record and Tracking System (GRTS).

As part of project implementation, NDEP will support the development and demonstrations of new BMPs as well as regularly evaluate the effectiveness of BMPs. Measurable improvements in water quality will be reported via Success Stories and semiannual progress reports and year-end reports.

CHAPTER 2: NONPOINT SOURCE POLLUTION IN NEVADA

2.1 KNOWN POLLUTANTS AND IMPAIRMENTS IN NEVADA'S WATERS:

Nevada contains approximately 15,549 miles of perennial rivers and streams in Nevada. Of the 705 units assessed for Water Quality, 33% are presently meeting standards for some or all beneficial uses. Approximately 32% of the assessment units in Nevada have insufficient information to assess any beneficial use attainment and nearly 35% of the assessment units do not meet water quality standards for at least one parameter supporting a beneficial use.

In accordance with the requirements of Sections 303(d)/305(b)/314 of the Clean Water Act, NDEP routinely conducts a comprehensive analysis of water quality data associated with Nevada's surface waters to determine whether state surface water quality standards are being met, and designated uses are being supported every three years (please check if correct). This State Management Plan uses information released in the latest Nevada Integrated Report in 2024 as the basis and will continue to iterate and refine NPS work with the most relevant and recent scientific finding available. Subsequent Integrated Reports are available at https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-standards/303d-305b-water-quality-integrated-report.

Table 2.1 contains a list of NPS impairments that were in the Integrated Report as of 2024. The primary pollutants contributing to water quality impairments in Nevada include phosphorus, temperature, iron, mercury in fish tissue, turbidity, *E. coli*, total dissolved solids (TDS), and total suspended solids (TSS). With the exception of temperature and *E. coli*, most of these pollutants are strongly associated with sediment transport and erosion-related processes. Key sources include but are not limited to streambank and channel incision, sheet and rill erosion from upland areas, sediment-laden runoff from rangelands and agricultural fields, disturbed soils in urban and construction settings, legacy loads from historic mining activities, and naturally erodible geologic formations. Through identifying and understanding the extent of the pollution, NPS Program seeks to leverage program implementation funding to reduce and, if possible, remove known impairments from critical waterbodies to keep Nevada's water quality healthy and safe.

Table 2.1. Integrated Report Parameters Causing Impairments (2024 DRAFT IR Table)

Parameter	Impairments by parameter	% of Total Impairments
Phosphorus	192	27.6%
Temperature	89	12.8%
Iron	60	8.6%
Mercury in Fish Tissue	40	5.7%
Turbidity	36	5.2%
E. Coli	35	5.0%
Total Dissolved Solids (TDS)	34	4.9%
Total Suspended Solids (TSS)	25	3.6%
pH	21	3.0%
DO	19	2.7%
Arsenic	18	2.6%
Sulfate	15	2.2%
Boron	15	2.2%
Mercury in sediment	13	1.9%
Manganese	12	1.7%
Fluoride	10	1.4%
Copper	10	1.4%
Zinc	8	1.1%
Cadmium	7	1.0%
Nickel	6	0.9%
Nitrogen	6	0.9%
ODOR	4	0.6%
Selenium	3	0.4%
Alkalinity	3	0.4%
Chloride	2	0.3%
Phosphate	2	0.3%
Fecal Coliform	2	0.3%
NITRATE/NITRITE (NITRITE + NITRATE AS N)	2	0.3%
Mercury, total	1	0.1%
Ammonia	1	0.1%
SODIUM ABSORPTION RATIO (SAR)	1	0.1%
Barium	1	0.1%
NON-NATIVE FISH/SHELLFISH/ZOOPLANKTON	1	0.1%
VERTICAL EXTINCTION COEFFICIENT	1	0.1%
Silver	1	0.1%
Total impairments =	696	100%

2.2 CONTAMINANTS OF EMERGING CONCERN

Contaminants of emerging concern (CECs) are increasingly recognized as potential threats to Nevada's water quality due to their persistence, complex sources, and evolving understanding of ecological and human health effects. Over the next five years, NDEP will focus on building a practical foundation to better identify the occurrence, sources, and transport pathways of these contaminants in priority watersheds, while evaluating cost-effective monitoring approaches and management strategies. This effort will emphasize targeted data collection, coordination with research and regional partners, and incremental development of tools and best practices that can inform voluntary, nonpoint source solutions aimed at reducing or preventing CECs from entering Nevada's surface and groundwater systems.

Microplastics:

Over 300 million tons of plastic are produced worldwide annually, and it has long been recognized that plastic pollution is pervasive in marine environments. More recently, attention has turned to inland waters, where microplastics—defined as plastic particles smaller than 5 millimeters—are increasingly being detected in lakes, rivers, and reservoirs. Studies conducted in Lake Tahoe have confirmed the presence of microplastics even in high-clarity, minimally developed systems. Because Lake Tahoe does not receive direct wastewater discharges, sources are currently thought to be largely from the breakdown of plastic litter and atmospheric deposition, highlighting that even remote or well-managed watersheds are not immune.

While Lake Tahoe provides an important early case study, emerging evidence suggests that microplastics are likely present across a wide range of Nevada waterbodies, with potential sources including urban runoff, wastewater effluent, recreational use, roadway dust, and degradation of consumer products. However, significant uncertainties remain regarding the distribution, transport, and ecological effects of microplastics in freshwater systems.

Over the next 5 years NDEP will continue to seek opportunities to build on emerging work by supporting targeted efforts to better characterize the presence, sources, and pathways of microplastics in Nevada waters. These efforts may include identifying areas of accumulation, understanding seasonal and hydrologic influences on transport, and evaluating potential impacts to aquatic life and water quality. The intent is to develop a clearer, science-based understanding that can inform practical and scalable management approaches, including source reduction strategies, and incorporation of microplastics considerations into existing watershed planning and best management practices. While initial efforts may leverage studies in systems such as Lake Tahoe, the broader goal is to translate findings to diverse watershed settings across the state.

Harmful Algal Blooms:

Harmful Algal Blooms (HABs) occur when there is a rapid growth of certain types of algae—typically cyanobacteria (blue-green algae) in freshwater—that can produce toxins harmful to domesticated

and wild animals and humans through recreational exposure and drinking water intakes. These blooms are often exacerbated by warm surface waters and elevated nutrient concentrations. In recent years, several HABs have occurred in Nevada reservoirs. In 2024, NDEP worked with technical partners, including the San Francisco Estuary Institute, to develop and deploy a near real-time satellite-based tool to track chlorophyll concentrations and identify potential bloom events. NDEP has also strengthened a coordinated communication and response approach with the Nevada Department of Health and Human Services, Nevada Department of Wildlife, and Nevada Department of Agriculture to provide timely public health advisories and protective measures.

HABs represent a key emerging water quality challenge, and over the next five years, the Nonpoint Source (NPS) Program will work with internal and external partners to improve monitoring, communication, prevention, and mitigation efforts, while supporting the development of practical management strategies. The NPS Program will seek opportunities to support actions that reduce nutrient inputs and address contributing watershed conditions. Reductions in nutrient loading and factors influencing elevated water temperatures will be aimed to decrease the frequency and severity of HABs over time.

Per- and Polyfluoroalkyl Substances (PFAS:

NDEP will continually assess emerging nonpoint source pollutants, including per- and polyfluoroalkyl substances (PFAS), by identifying potential diffuse pathways such as stormwater runoff, infiltration from contaminated soils, and land application of biosolids or industrial residuals. In coordination with local partners, watershed groups, and other agencies, NDEP will work to identify PFAS-related risks and incorporate them into watershed characterization and planning efforts, as feasible. As scientific understanding and analytical capabilities evolve, NDEP will evaluate the applicability and performance of structural and non-structural BMPs in limiting PFAS mobilization and transport. Where appropriate, Nevada will support and solicit plans for corrective strategies—such as targeted outreach, site-specific BMP recommendations, and land use guidance—to prevent or reduce PFAS loading to surface and ground waters from nonpoint sources.

2.3 GENERAL NPS POLLUTION SOURCE CATEGORIES AND MITIGATION APPROACHES

The following subcategories of activities, processes, and practices can be associated with nonpoint sources of pollutants leading to related water quality impairments in Nevada.

- Hydrologic Modification
- Floodplain Loss
- Urban Land Use and Development
- Agricultural Land Use
- Wildland Fire

- Noxious Weeds/Invasive Species
- Mining and Resource Extraction
- Land Disposal

2.3.1 HYDROLOGIC MODIFICATION

Throughout the past 150+ years, rivers and streams throughout the state have been dammed, dredged, straightened, diverted and used for timber transportation. Hydrologic modification alters the natural structure and function of a waterbody. Flow regimes are changed, erosion is increased, riparian habitat is lost, temperatures rise, and water quality is diminished. Many of these impacts are related. For example, straightening a stream channel can increase stream velocities and destroy downstream pool and riffle habitats. As a result of less structure in the stream to retard velocities, downstream velocities may continue to increase and lead to more frequent and severe erosion.

The major pollutant categories associated with Hydrologic modification include nutrients (P), salinity (TDS) and temperature.

BMPs to address NPS pollution caused by hydrologic modifications include:

- Bank stabilization and riparian habitat restoration (that is done in coordination with landowners/livestock operators to ensure that land use and management is complementary to restoration activities).
- Channel restoration projects that increase sinuosity and create natural geomorphologic conditions.

2.3.2 FLOODPLAIN LOSS

Floodplains store water during high flow events, allowing it to be slowly released back into the river system, giving time for pollutants such as sediment and nutrients to settle out. Floodplains support important wildlife habitat and recreation. Urban development can encroach on floodplains, replacing them with impervious surfaces. This development may result in confined waterways that can have detrimental impacts. Flows not allowed access to the floodplain can increase channel incision, erosion, and the amount of water and pollutants delivered downstream. Channel incision due to erosion also reduces floodplain filtration and assimilation of pollutants during flooding.

BMPs to address NPS pollution caused by floodplain loss include:

- Floodplain and riparian habitat restoration projects (including restoration/maintenance of meandering channels, side channels to expand wetlands, removal of levees or dikes that allow floodwaters to spread out naturally).

- Environmental education to promote infrastructures such as wetlands, rain gardens, and permeable pavements, and to inform stakeholders regarding the value of floodplain management to water quality and watershed health.
- Education regarding the use of conservation easements to protect and restore floodplains and sensitive lands.

Implementation of these strategies is ongoing and will continue over the next five years. NDEP will continue to work with partners including Carson Water Subconservancy District, One Truckee River, Las Vegas Wash Coordination Committee and other stakeholders to protect and restore floodplains.

2.3.3 URBAN LAND USE AND DEVELOPMENT

Urban landscapes impact local hydrology in myriad ways by changing the nature and timing of runoff, introducing new pollutants, altering rates of erosion and increasing peak flows and flooding potential. Changing conditions from a vegetated, undisturbed state to an urban setting dominated by impervious surfaces decreases evapotranspiration and interception rates and increases erosion while introducing new pollutants to runoff. Other impacts from developed urban land include decreased infiltration rates and increased storm flows. The increase in impervious surfaces reduces the time of concentration of storm flows and creates higher peak discharges in shorter amounts of time. Larger instream flows erode and incise channels and disconnect streams and rivers from their floodplains. Flood potential increases substantially. As a result, the hydrology of an urban watershed is substantially altered from the natural state and increased management of these impacts is necessary.

Rainfall and dry-overland flows from irrigation that are intercepted by urban development run quickly and directly into streams, dramatically increasing their volume and peak flows. This runoff may contain high concentrations of heavy metals, lawn and garden chemicals, bacteria, silt, petroleum products, and nutrients.

Strategies to address NPS pollution related to urban land use include:

- Implement BMPs that minimize or prevent urban NPS (low water use irrigation systems, bioswales, raingardens, green strips, permeable pavement etc.).
- Establish and support watershed plans to restore water quality in impaired waters and to protect waters threatened by point source and nonpoint source pollution.
- Provide environmental education and outreach programs that inform the public and raise awareness about urban nonpoint source issues and the benefits of using low impact development (LID) practices and other BMPs (e.g. permeable pavements, green roofs, dog lawns, coanda filters etc..)
- Educate decision-makers and developers on proper land use planning and development-including incentivizing the use of LID designs by lowering water use.

Implementation of these strategies is ongoing and will continue over the next five years. NDEP will continue to work with partner agencies including Carson Water Subconservancy District, Southern Nevada Water Authority, Reno, Sparks and other urban jurisdictions (cities and counties) to address urban NPS pollution in the major population centers and Lake Tahoe Basin. Educational activities are eligible for Section 319(h) support when associated activities can report measurable outcomes tied to BMP implementation.

2.3.4 AGRICULTURAL LAND USES

Nevada's agricultural lands, including its extensive rangelands, are vital to the state's economy, heritage, and environment. Grazing, hay production, and irrigated pastures provide ecological and cultural benefits that are sustained through the stewardship and collaborative management practices long established by producers and land managers. NDEP will work in partnership with agricultural producers, land managers, and conservation organizations to address technical needs and focus on incentive-based solutions to manage sediment, nutrient, and bacteria load in water quality.

BMPs described in this Plan—such as adaptive grazing practices, infrastructure improvements (e.g., off-stream watering systems, fencing, or erosion control), and improved irrigation management—are presented as examples of practices that may be supported when identified as priorities by local producers and partners. The NPS Program will seek to promote and provide technical assistance, cost-share opportunities, and facilitation to help producers voluntarily implement practices that sustain working lands and protect water quality.

The success of these efforts depends on local knowledge and producer experience. Ranchers, farmers, and land managers possess critical on-the-ground expertise that ensures management practices are both practical and effective. The NPS Program will continue to engage and work collaboratively with the BLM, other state and federal agencies, and grazing permittees to facilitate adaptive management and range improvements where they can help improve water quality. Providing education and resources to grazing operators to create opportunities to improve nonpoint source pollution is an example of a soft best management practice that could help in certain instances when NPS pollution is caused by grazing. Furthermore, coordination with Federal, State and local partners is needed to limit degradation of pasture and rangeland by improper grazing of estray and feral horses and burros. The NPS program will seek to contribute to joint ventures with producers, conservation districts, and grazing boards to design projects that reflect Nevada's diverse agricultural landscapes and uphold the collaborative traditions that have guided land stewardship across the state.

2.3.5 WILDLAND FIRE

Wildfire can be devastating to water quality, wildlife, habitats and local economies. Due to widespread and systematic wildfire suppression over the past 100 years, the typical wildfire today burns faster and hotter than a historical, natural wildfire did. Major pollutant categories

associated with Wildland fires are sediment, nutrients, salinity (TDS), and temperature, and are often associated with the decrease of rangeland or forest function. Wildfires devastate water quality, and for a dry state like Nevada, the immediate and long-term impacts can be severe. The loss of vegetation through wildfire leads to denuded areas susceptible to increased erosion; soils burned at a temperature that has rendered them hydrophobic, sterilization of seed banks decreased the likelihood of reestablishing native vegetation; and the loss of riparian vegetation means the loss of wildlife habitat. Additionally, fires mobilize nutrients into aquatic systems during subsequent storms. There is typically an influx of noxious weeds that replace the burned native vegetation after a fire event, resulting in monocultures of cheat grass and other weeds which are invasive in Nevada. And hundreds of thousands of acres in Nevada are susceptible to a wildfire event in Nevada.

BMPs to address NPS pollution associated with wildland fires include:

- Prevention through strategic biomass reduction using mechanical and, where appropriate, biological methods
- Post-fire erosion control measures (e.g., fire break stabilization, mulching, and other soil stabilization practices)
- Noxious weed control and reseeding with appropriate native or adapted vegetation.
- Upland revegetation in coordination with bank stabilization and riparian habitat restoration.

Education and outreach to landowners and residents can support effective implementation of these BMPs, including promoting practices that reduce wildfire risk (e.g., defensible space and fire-resistant landscaping) and help protect water quality by minimizing post-fire erosion and runoff.

2.3.6 NOXIOUS WEEDS/INVASIVE SPECIES

Noxious weeds and invasive species are non-native introduced species that out-compete native plants and animals and create massive monocultures that have little ecological or economic value. They spread extremely quickly by various vectors and are difficult to control. Noxious weeds/invasive species can be terrestrial or aquatic. Noxious weeds can have deleterious effects on water quality in several ways. Many noxious weeds are annuals and therefore do not have the ability to hold soil and prevent erosion like native species, both on uplands and in riparian areas. Some noxious weeds, like cheat grass, increase fire hazards and therefore can threaten riparian areas. Other invasive species include aquatic plants and animals, such as the New Zealand mud snail, Quagga mussels, and Eurasian water milfoil, which wreak havoc on surface waters.

The major pollutant categories associated with Noxious and Invasive Species include nutrients (P), salinity (TDs) and total suspended solids (TSS).

Strategies to address NPS pollution caused by noxious weeds and other invasive species include:

- Noxious weed control and reseeding areas with native vegetation, or species that will easily establish.
- Bank stabilization and riparian habitat restoration.
- Grazing management includes offsite watering, timed livestock grazing and herding to bolster other control efforts for weed and invasive grass treatments and promote riparian function.

Efforts to prevent and control noxious weeds and invasive species typically involve coordination among federal, state, tribal, and local land management agencies, conservation districts, cooperative weed management areas, and nonprofit organizations. Key partner categories may include the Nevada Division of Forestry, Nevada Department of Agriculture (noxious weed program), university extension programs, local weed control districts, federal land management agencies (e.g., BLM, USFS, and NRCS), and local conservation or watershed groups engaged in habitat restoration and invasive species management.

2.3.7 MINING, RESOURCE EXTRACTION, EXPLORATION, AND DEVELOPMENT

Mining has been and continues to be an integral part of Nevada's history and economy. Currently, there are twenty-four metal mines, twenty-four industrial mineral mines, six oil fields and twelve geothermal power plants in Nevada. Some of the minerals and metals mined include gold, copper, lithium, molybdenum, diatomaceous earth, gypsum, and lime. Nevada regulates, as point sources and through the Bureau of Mining Regulation and Reclamation, many mining activities traditionally considered nonpoint sources. Nevada's Revised Statutes (NRS 519A.010 - NRS 519A.280) requires reclamation of lands disturbed by mining activities. The scope of these provisions delegates regulatory and enforcement authorities to specific programs within the state and significantly reduces the numbers and types of mining related activities that are considered nonpoint sources. For example, runoff from waste rock dumps is regulated primarily under State Water Pollution Control permits and falls under the NPDES Storm water program. Additionally, BCA oversees the Abandoned Mine Lands Program to address discharges and impairments related to past mining activities. Abandoned mines and abandoned leach piles can be non-point sources of inorganic metals.

While mining activities are primarily regulated by other programs in Nevada and there has been minimal historical engagement in mine mitigation efforts, the watershed approach in nonpoint source pollution management makes this program a critical piece in pollution control. In the next 5 years, NPS program seeks to become an active participant and a driver to implement mitigation controls in activities such as road construction and hydrologic modifications. NPS program will step in to fill in the gaps by collaborating with regulatory programs to identify opportunities.

BMPs to address NPS pollution related to active and abandoned mining activities should include:

- Revegetation of mine tailings
- Construction of passive treatment systems to address acid mine drainage
- Stabilization of eroding waste piles to prevent sediment and metal-laden runoff.

2.3.8 LAND DISPOSAL

The Land Disposal source category includes sludge, wastewater, landfills, on-site wastewater systems and hazardous waste subcategories. Sludge and wastewater are regulated by NDEP's Bureau of Water Pollution Control, through Nevada's Water Pollution Control Law, Water Pollution Control Regulations, and Solid Waste Regulations and Management Plan and the Bureau of Sustainable Materials Management. Hazardous waste is regulated by NDEP's Bureau of Sustainable Materials Management through the State's Hazardous Waste Regulations and Management Plan.

Large-scale renewable energy projects (e.g., solar fields, wind farms, geothermal facilities, and associated transmission infrastructure) may involve significant land disturbance, grading, and surface compaction. These activities can generate sediment, alter drainage patterns, and affect riparian or wetland resources. While such projects are subject to permitting and environmental review by federal, state, and local authorities, the NPS Program recognizes renewable energy development as a potential contributor to nonpoint source pollution. The Program will support mitigation measures and best management practices (BMPs) — such as erosion control, revegetation, and stormwater management — in coordination with land managers, permittees, and project proponents to minimize impacts to water quality where non permitted actions may be appropriate.

2.3.9 OFF-HIGHWAY VEHICLES

Recreational use of off-highway vehicles (OHVs), including organized races and informal trail use, also can contribute to sedimentation, streambank destabilization, and vegetation loss, particularly in riparian corridors, playas, and upland areas with fragile soils. The NPS Program acknowledges OHV use as another potential nonpoint source stressor when not properly managed. Where opportunities arise, the Program will support collaborative efforts with land managers, counties, and local OHV organizations to implement BMPs such as designated trail systems, riparian protections, erosion control measures, and education programs to reduce OHV-related impacts on water quality.

2.3.10 WILD HORSES AND BURROS

Wild horse and burro populations are an important part of Nevada's rangelands, but when herd numbers exceed the Appropriate Management Levels (AMLs) set by federal land managers, the resulting overpopulation can place stress on rangeland health, riparian zones, and water sources. These conditions may contribute to sedimentation, streambank degradation, and reduced water quality.

The Nevada Nonpoint Source (NPS) Program is not a horse and burro management agency and does not play a role in setting or enforcing AMLs. However, the Program acknowledges the importance of

this issue and supports the efforts of those agencies and partners charged with achieving AMLs. Where herd management or range restoration plans identify water-quality concerns, the NPS Program may assist by supporting on-the-ground mitigation or restoration projects—such as riparian stabilization, spring protection, or erosion control—that are consistent with voluntary, collaborative, and incentive-based approaches.

CHAPTER 3. PRIORITIZING AND PLANNING RESTORATION AND PROTECTION WORK

Effective prioritization and planning are fundamental to the success of Nevada's NPS Program. This chapter outlines the approach BWQP will use to prioritize watersheds for protection and restoration over the next five years. The goal is to direct limited resources toward projects within watershed plans such that the projects will yield the greatest water quality benefits, build durable partnerships, and maximize environmental co-benefits.

Watershed plans have been developed and accepted by EPA for the Carson River Watershed, the Las Vegas Wash and the Lake Tahoe Basin. An alternative plan has been conditionally accepted for Truckee River Tributaries from the Nevada state line to Lockwood (just downstream of the Cities of Reno and Sparks). With only these watershed plans developed and accepted by EPA the state has over 500 water quality assessment units that do not have plans in place that would allow consideration for project funding using 319 resources/monies (for either protection or restoration activities- Table 3.1).

Table 3.1 Watersheds Assessment Units Numbers in Water Quality Categories (2024)

	Categories						
Watershed/ Region	1	2	3	4A	5	Total	Watershed-Based Plan
Carson	1	5	13	0	32	51	CRASP
Central	0	40	47	0	10	97	none
Colorado/LV Wash	1	21	11	0	18	51	CAMP
Truckee	4	33	28	1	28	94	Tahoe TMDL; Truckee-Tribs Alt. Plan; Gold Ranch Fire Alt. Plan;
Walker	0	4	7	0	14	25	none
Snake	0	20	34	1	36	91	none
Humboldt	1	83	49	1	79	213	none
Black Rock	0	8	18	0	17	43	none
Great Salt Lake	0	9	1	0	0	10	none
Northwest Region	0	3	18	0	9	30	none
Nevada	7	226	226	3	243	705	

NDEP recognizes the need to update existing plans and expand planning efforts. As previously described, NDEP seeks to substantially increase coordination with local, state and federal agencies to address water quality and watershed health issues throughout the entire state. Watershed plans are already under development and refinement for the Virgin River and the East Fork of the Walker River

such that these plans fully meet the 9 elements called for in an EPA-accepted WBP. An emphasis over the next five years is to target prioritization and planning on additional watersheds while updating/adaptively managing efforts within existing watersheds covered by accepted WBPs such that a larger fraction of Nevada's waters has watershed plans and are targets for prioritized implementation activities. The approach to planning and prioritization for both projection and restoration activities is described in the following sections.

3.1 PRIORITIZATION AND PLANNING FOR PROTECTION

In alignment with a renewed emphasis to devote resources to proactive watershed protection activities in the latest EPA Nonpoint Source Program Guidelines (April 2024) the Nevada Division of Environmental Protection's Bureau of Water Quality Planning (NDEP-BWQP) will expand its use of watershed-based and alternative planning approaches to protect high-quality waters from future degradation.

A renewed focus will also be placed on **updating existing WBPs** to explicitly incorporate protection objectives. In areas with existing WBPs, BWQP will assess whether Category 1 and 2 waters within those watersheds face identifiable threats and whether updated planning could enhance protection. As part of this process, NDEP will:

- Create benchmark for protection and maintenance goals
- Solicit watershed planning facilitators to help assess and identify
    a) Existing or perceived (and emerging) threats to water quality
    b) Anti-degradation BMPS which maintain high-quality waters (e.g. conservation easements)
    c) Potential technical and financial partners to engage in protection work
- Provide technical assistance to support updates or expansions of existing plans as appropriate

In **areas without existing WBPs**, NDEP will take a similar approach by:

- Identify high-quality waters using available datasets such as the Nevada Integrated Report, EPA's How's My Waterway listings, the RPS tool and reference site assessments by BWQP's Biological Assessment Monitoring team.
- Solicit planning facilitators from a broad statewide list of stakeholders with demonstrated interest and capacity
- Create a benchmarks for protection
- Facilitate the development of new protection-oriented WBPs or alternative plans that incorporate protection objectives

In parallel, NDEP's NPS Branch will continuously evaluate opportunities to mitigate emerging or urgent threats to unimpaired waters. Where formal WBPs are not feasible or timely, alternative plans may be developed to guide implementation of near-term protective actions addressing specific NPS concerns (e.g., post-fire runoff risks, land conversion hotspots, etc..).

Through all these efforts the entire list of prioritization considerations provided by the 319 guidelines are being and will be considered. Specifically:

- Outstanding National Resource Waters or other state-defined categories of high-quality waters (e.g. waters of extraordinary ecological or recreational significance per NRS Antidegradation policy).
- Watersheds currently supporting healthy aquatic ecosystems, as identified in assessments of watershed function and structure (e.g., the EPA's Healthy Watersheds Integrated Assessments).
- Waters and watersheds identified as protection priorities in the CWA Section 305(b)/303(d) integrated report.
- Watersheds or portions of watersheds with unique, valuable, or threatened species or the critical aquatic habitats of these species.
- Waters and watershed areas (including groundwater where appropriate) that serve as source water for a public drinking water supply.
- Healthy waters in watersheds where it complements efforts to restore NPS-impaired waters.
- Waters near geographic areas where rapid land use development is occurring.
- Waters where data trends indicate water quality degradation is occurring.
- Restored waters that require continued water quality assessment and maintenance of BMPs to ensure unimpaired status.
- Watersheds that contribute high nutrient loads to downstream waters.

Additional informational resources will be used on evaluating prioritizations. These specifically include:

- Category 1 and Category 2 waters from Nevada's Integrated Report (unimpaired waters, Table 4.1)
- Existing Total Maximum Daily Loads (TMDLs) and implementation plans.
- EPA's Recovery Potential Screening (RPS) Tool
- Reference condition assessments and potential from BWQP's Bioassessment Branch

Additional considerations will also be given to:

- Headwaters, wetlands, and riparian corridors (in coordination with the Nevada Division of Natural Heritage, NDOW, local stakeholders and others)
- Category 1 and 2 waters facing increasing land use pressure from urbanization, wildfire, mining, or resource development
- Habitats of threatened and endangered species (as prioritized and coordinated by the U.S. Fish and Wildlife Service, with the federal land management agencies and private landowners regarding species management and habitat needs).

- Regions with potential environmental co-benefits such as groundwater recharge, and wildfire resilience

Partnership development remains central to protection success and the readiness and capacity to proceed with stakeholders ranks among the highest of factors leading to prioritization of protection efforts. NDEP will continue engaging active collaborators through efforts like the Shared Stewardship Framework and the Nevada Sagebrush Ecosystem Program, the Conserve Nevada Program and will seek to build additional new partnerships throughout the state.

FIVE-YEAR PROTECTION ACTIVITIES AND MILESTONES

Year 1:

- Evaluate Category 1 and 2 waters in areas with existing WBPs
- Solicit watershed planning facilitators to evaluate threats, stakeholder interest, and implementation readiness
- Identify priority protection watersheds using this information and the and reference condition assessments
- Initiate updates to WBPs where protection priorities are underrepresented
- For areas lacking WBPs, identify and engage new planning facilitators from the broader stakeholder pool
- Explore development of alternative plans for urgent or emerging NPS threats

Years 2–3:

- Advance the update and development of WBPs or alternative plans with a protection emphasis
- Begin implementation of priority protection projects, including source water protection, riparian corridor conservation, BMP installations, and land use coordination
- Apply Nevada's antidegradation framework to support prioritization and project development
- Continue identifying protection gaps and facilitating plan revisions

Years 4–5:

- Evaluate and adaptively manage protection projects and planning documents
- Monitor effectiveness using both environmental data and implementation metrics
- Identify new areas requiring protection due to emerging pressures or improved data
- Publish NPS Success Stories where measurable protection outcomes are achieved

3.2 PRIORITIZATION AND PLANNING FOR RESTORATION

BWQP will continue to prioritize restoration activities aimed at addressing known water quality impairments across the state. With updated federal guidance enabling expanded planning flexibility, the program will now take a two-pronged approach to restoration planning: (1) updating existing WBPs to maintain their relevance and usefulness, and (2) identifying and engaging new stakeholders to develop

plans in areas without any. Prioritization and planning efforts will focus on strengthening local and regional partnerships to enhance the effectiveness of the NPS Program in addressing water quality issues at the community level. By engaging with local and regional stakeholders, the program can incorporate valuable perspectives and insights into resource concerns, thereby improving the quality of outcomes and the overall success of these efforts.

In watersheds where WBPs or alternative watershed plans already exist, BWQP will initiate a review to determine whether the plan continues to align with current water quality conditions, implementation feasibility, and restoration priorities. This review will also assess whether new impairments or emerging stressors—such as wildfire or land use change—have surfaced since the plan's original development. Additionally, BWQP will evaluate the level of stakeholder interest and capacity to support continued or enhanced implementation efforts.

In watersheds without existing plans, BWQP will use the Category 5 waters identified in Nevada's Integrated Report as a starting point to identify restoration opportunities. NDEP/BWQP will apply the EPA's RPST to further evaluate these Category 5 waters and develop a prioritized list of areas with strong potential for restoration success. This list will guide outreach efforts by helping to identify and solicit interest from planning facilitators and stakeholders across the state. Outreach will focus on areas where impairments are potentially impacting local communities but where planning or implementation activity is currently limited or absent. Additionally, BWQP will target watersheds that intersect with emerging issues, such as areas affected by wildfire or those with potential for HABs, recognizing the urgency of addressing these threats through coordinated restoration planning. Priority will be given to stakeholder groups that demonstrate both an interest in, and the capacity for, leading or supporting the development of new watershed-based or alternative plans.

Watershed planning will use all available tools to inform and guide efforts; across all planning and implementation activities, BWQP will continue to leverage resources such as *How's My Waterway*, the EPA RPST, *Model My Watershed*, water quality trend data, and local land use and hydrologic information. In addition, the EPA's Pollutant Load Estimation Tool (PLET) will be used to support planning and project design by estimating pollutant load reductions associated with proposed best management practices. Restoration activities will also be prioritized where they deliver co-benefits such as habitat recovery, carbon sequestration, and wildfire or flood risk mitigation.

Through all these efforts the entire list of examples provided by the 319 guidelines are being and will be considered. Specifically:

- Human health considerations, including contact recreation and/or source water protection for drinking water.
- Ecosystem integrity, including ecological risk and stressors.
- Beneficial uses of the water.
- The value of the watershed or groundwater area to the public.

- The likelihood of achieving demonstrable environmental results (over the short term- days to years or long term- decades).
- The degree of understanding of the causes of impairment and the solutions capable of restoring the water.
- The adequacy of existing water quality monitoring data or future monitoring commitments.
- The degree to which TMDL allocations assigned to point sources depends on achieving NPS reductions.
- The extent of coordination with other federal agencies; states; local, public, and private agencies/organizations; and other stakeholders to coordinate resources and actions.
- The readiness and capacity to proceed among stakeholders, including other federal, state, and local agencies or organizations.

Similar to protection work, the readiness and capacity of stakeholders to proceed will continue to rank high among the factors leading to prioritizing restoration activities and efforts.

FIVE-YEAR RESTORATION ACTIVITIES AND MILESTONES

Year 1:

- Conduct a statewide review of existing WBPs to identify:
    - Outdated elements or implementation gaps
    - Current impairment status and monitoring data
    - Opportunities for updates that support more effective restoration
- Initiate updates to high-priority existing plans, especially where implementation can be reinvigorated
- Identify Category 5 waters from the Integrated Report that lack approved plans
- Solicit interest from new planning facilitators and stakeholders in unplanned watersheds with significant impairments
- Provide technical assistance for plan updates and development

Years 2–3:

- Continue to revise and strengthen existing WBPs or alternative plans based on updated information and partner input
- Launch new plan development efforts in watersheds identified through Year 1 outreach
- Prioritize implementation of BMPs in watersheds with recently updated or completed plans
- Support capacity-building efforts for stakeholder groups in newly engaged regions

Years 4–5:

- Maintain and adaptively manage ongoing restoration projects
- Evaluate the effectiveness of updated and new watershed plans in driving water quality improvements
- Document pollutant load reductions and other indicators of success (e.g., streambank stabilization, riparian restoration, habitat improvements)

- Publish NPS Success Stories for projects demonstrating measurable improvement or strong collaborative engagement
- Reassess the statewide inventory of impaired waters to identify remaining gaps in watershed planning or implementation

CHAPTER 4: IMPLEMENTING PLANS AND PROJECTS

This chapter describes how Nevada's Nonpoint Source (NPS) Program implements water quality improvement efforts through existing watershed-based plans (WBPs) and/or alternative plans, while also identifying areas for the development of new plans and periodic review of existing plans. Implementation efforts focus first on advancing actions identified in EPA-accepted plans—such as the Carson River Adaptive Stewardship Plan, Lake Tahoe TMDL, and Las Vegas Wash Comprehensive Adaptive Management Plan—through coordinated project funding, stakeholder engagement, and tracking of environmental outcomes.

In watersheds where plans are incomplete or do not meet EPA's nine-element criteria, the NPS Program will support development of new plans, applicable alternative plans or updates to existing plans. The Program will also periodically review and adapt implementation efforts based on monitoring data, project outcomes, and new scientific information to ensure continued progress toward water quality goals.

4.1 CARSON RIVER

The Carson River originates in Alpine County, California and flows into Nevada as two separate tributaries. The East Fork begins in the Carson Iceberg Wilderness and the West Fork near Lost Lakes. The West Fork becomes Brockliss Slough in Nevada and meets the East Fork near Genoa in Carson Valley. The main stem of the river continues through Carson City into Dayton Valley and after being diverted primarily for agriculture, remaining flow is stored in Lahontan Reservoir. The Lower Carson River is released from the reservoir, providing water for farms, ranches and the Stillwater Wildlife Refuge before terminating in the Carson Sink. The river, from headwaters to terminus, is approximately 184 miles in length. Like many rivers and waterways in Nevada, the Carson River ends in a terminal playa lake, meaning that it does not flow to the ocean. The watershed has been impacted by mining, logging, agriculture, urban development, hydrologic modification, floodplain loss, and flooding.

As a result of the 1997 100-year flood event, the Carson River Coalition (CRC) was created to integrate watershed management efforts throughout the basin. In May 2007, the *Carson River Adaptive Stewardship Plan (CRASP)* was completed by the CRC and Carson Watershed Subconservancy District (CWSD) in cooperation with the NPS Program and EPA Region 9. The CRASP (link here) provides an overview of the watershed, identifies potential sources of pollution, discusses short- and long-term strategies to mitigate pollution, provides a mechanism to track projects and addresses EPA's nine

required key elements of a WBP. During the 2015-2019 Plan, the CRASP was updated and approved by EPA.

In 2008, the CWSD and stakeholders developed the Regional Floodplain Management Plan (RFMP) to address the impacts of flooding. The RFMP (which is currently being updated) incorporates principles of managing development without sacrificing floodplain and river form and function; ensuring public safety; protecting property rights while conserving natural resources; protecting and improving wildlife habitat and water quality; providing river continuity and connectivity; and promoting land conservation in the river corridor.

In the next five years, NDEP will prioritize working with active partners to implement the revised CRASP to reduce nutrients and sediment and improve riparian habitat and water quality (including in-channel restoration); promote the update and implementation of the RFMP including developing and delivering a related outreach plan; and support and deliver a high-quality environmental education program.

4.2 COLORADO RIVER

The Colorado River watershed in Nevada encompasses the southern portion of the state, including tributary systems that ultimately drain to Lake Mead, a critical water supply for the region. In Nevada, much of the watershed is characterized by arid landscapes, ephemeral tributaries, and highly managed water systems influenced by urban development, particularly in the Las Vegas Valley. Nonpoint source (NPS) pollution concerns in this watershed are closely tied to erosion, urban runoff, altered hydrology, and localized habitat degradation. Given the scale and complexity of the basin, watershed-based planning efforts in Nevada are currently focused on two key areas: the Las Vegas Wash, where an EPA-accepted Watershed-Based Plan guides implementation, and the Lower Virgin River, where a watershed plan is under development and refinement to meet EPA nine-element requirements. NDEP will also seek opportunities to expand watershed-based planning into other priority tributaries within the basin to further support targeted, locally driven water quality improvements. These efforts collectively represent the framework for advancing NPS management in Nevada's portion of the Colorado River Basin.

4.2.1 LAS VEGAS WASH

The Las Vegas Wash (Wash) is the natural drainage system for the Las Vegas Valley hydrographic Basin. The Wash is an effluent-dominated system, with the largest flow component comprised of reclaimed water from four large wastewater treatment plants to the Las Vegas Bay of Lake Mead. Intercepted shallow groundwater and urban runoff are a much smaller regular flow component. Storm events can deliver massive volumes of runoff to the Wash causing erosion, head-cutting and loss of habitat and infrastructure.

The Las Vegas Wash Comprehensive Adaptive Management Plan (LVWCAMP, an EPA- accepted WBP), which was approved by the Las Vegas Wash Coordination Committee on December 28, 1999, tackles the tough issues surrounding the Las Vegas Wash such as erosion, habitat loss and water quality. The main

recommendations of the CAMP are to define the structure for local oversight of the plan; install erosion control structures; identify water resources needs to maintain Clark County Wetlands Park; participate in Alternate Discharge Study; establish off-stream wetlands and evaluate storm water detention/retention basins; conduct sediment transport modeling; develop long-term monitoring programs; develop a central database for shallow ground water information; support the development and implementation of environmental review process among planning entities; investigate potential funding source; and continue implementation of the Public Outreach Program.

NDEP is focusing efforts on supporting the active stakeholders who are implementing water quality improvements in the Las Vegas Wash in the next five years. The main water quality issue addressed is reducing sediment in the Wash and educating residents in how to reduce nonpoint source pollution. The NPS Program's efforts are relatively minor and focused on supporting the extensive efforts being implemented by the local stakeholders. This includes funding priority projects consistent with the CAMP to reduce sediment and other NPS pollutants and conducting environmental education programs that are not called for in permitting actions.

4.2.2 LOWER VIRGIN RIVER

The Virgin River is a tributary to the Colorado River that flows into Nevada from Southwestern Utah and Arizona and continues to Lake Mead, the main drinking water source for Las Vegas. The river and its adjacent lands provide habitat for many federally listed species, including the Virgin River chub and the Southwestern willow flycatcher. The virgin River is listed as impaired due to exceedances in total phosphorous (mainly due to erosion) and temperatures (most likely due to a combination of morphology, riparian vegetation and water volume).

NDEP was invited to engage with the Virgin River Coalition (VRC) watershed planning process in 2017 and participated in the development of a watershed plan for the Nevada portion of the Virgin River corridor. The Coalition developed the initial plan and has provided resources to develop water quality goals to such that the plan meets all 9 elements of an EPA WBP. NDEP will continue to provide guidance and technical assistance to the VRC which will position the stakeholders in the watershed to fully engage in implementation projects to improve in-stream temperatures and decreased loadings of total phosphorus- both of which should improve habitat for the propagation of aquatic life (its main impaired beneficial use). The VRC's watershed plan is in revision to meet requirements for an EPA accepted nine-element plan.

The revised plan will be completed during year one of the five (5) year plan and it is anticipated that implementation activities to mitigate erosion sources in the area and to improve in-stream temperatures will ensue throughout the remaining years of the Plan. Specific BMPs that will be explored likely include Tamarisk removal and riparian area vegetation managed. Erosion controls within ephemeral channels that exhibit erosion in response to episodic flashy precipitation events as well as the promotion of LID practices in association with land developments throughout the area. Work is

already underway regarding BMP planning among stakeholders (including BLM, NDOW, Arizona's Department of Game and Fish).

4.3 LAKE TAHOE BASIN

The Lake Tahoe Basin is a destination for approximately 15 million visitors annually and is home to roughly 55,000 year-round residents. As the largest alpine lake and third deepest in North America, Lake Tahoe is famous for its remarkable clarity and striking blue color. It is designated an Outstanding National Resource Water (ONRW) by the state of California and a "water of extraordinary ecological or aesthetic value" by the state of Nevada.

However, approximately one-third of Lake Tahoe's unique clarity was lost between 1968 and 2000. To address the beneficial use impairment, the California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) and NDEP collaborated to develop the Lake Tahoe TMDL. Approved by EPA in August 2011, the Lake Tahoe TMDL quantifies the relative contributions of fine sediment particles (FSP), phosphorus, and nitrogen inputs to Lake Tahoe from major pollutant sources; quantifies load reductions needed to achieve the TMDL numeric and interim Clarity Challenge annual average secchi depth targets of 29.7 and 24 meters respectively; and outlines a workable, cost-effective implementation strategy to meet these goals. The Lake Tahoe TMDL together with its supporting documents serves as the WBP for the Lake Tahoe Basin which meets the nine EPA-required elements.

Lake Tahoe TMDL research identifies fine sediment particles (FSP) less than 16 microns in diameter as the greatest contributor to lake clarity decline and stormwater runoff from the urban uplands as the primary source of FSP pollution. Urban stormwater runoff was found to contribute 72 percent of the total FSP load entering Lake Tahoe. NDEP entered Interlocal Agreements (ILAs) to implement the Lake Tahoe TMDL with the Nevada urban jurisdictions: Douglas County, Washoe County, and the Nevada Department of Transportation. A more flexible regulatory approach than that which is permit-based, the agreement process is intended to span the timeframe needed to achieve clarity goals. The ILAs specify the following actions that each urban jurisdiction will take to implement the Lake Tahoe TMDL:

(1) Develop and implement stormwater load reduction plans to achieve established milestones;
(2) Participate in and manage (along with California Lahontan Waterboard: the Lake Clarity Crediting Program;
(3) Implement stormwater and pollutant control condition assessment monitoring; and
(4) Report accomplishments on an annual basis (in GRTS as TMDL project and annual reports).

The Lahontan Water Board and NDEP developed the Crediting Program to support prioritization and implementation of the most effective controls to reduce FSP loading from urban stormwater runoff. The Crediting Program uses standardized tools and protocols that urban jurisdictions apply to consistently and transparently estimate load reductions achieved through implementing water quality improvement actions. Urban jurisdictions use the Pollutant Load Reduction Model (PLRM), a continuous simulation water quality model developed as part of the Crediting Program, to estimate pollutant load reduction potential associated with implemented pollutant controls. Once registered in the online Lake Tahoe Info

Stormwater Tools, urban implementers (in Nevada) are awarded lake clarity credits for these pollutant controls if established condition assessment protocols verify that actual on-the-ground conditions are representative of modeled condition and NDEP's review accepts and documents such assessments.

Changes in nearshore conditions at Lake Tahoe have become evident to visitors, residents, and resource managers. Of particular concern are the changes in nearshore clarity, increasing periphyton growth, spread of invasive species, and a decline of native species in the nearshore biological communities. NDEP participates as a member of the Nearshore Agency Workgroup with Lahontan, TRPA and EPA to implement the Nearshore Resource Allocation Program (NRAP). NRAP directs nearshore science and monitoring investment through a systematic framework to better understand nearshore conditions and processes and reduce uncertainty about management actions. The NRAP is structured around a series of environmental focus areas, each with unique conditions and challenges. Online documentation on each focus area page provides a brief state-of-the-knowledge summary, descriptions of recent research findings, and links to applicable monitoring programs.

NDEP is focusing efforts toward achieving the Clarity Challenge goal of 24 meters annual average Secchi disk depth by 2031. This will be done by coordinating with the urban and non-urban partners to implement the TMDL and by educating the public about nonpoint source issues in the Lake Tahoe Basin. Additional information regarding the Lake Tahoe TMDL Program is available on the Lake Clarity Tracker on Lake Tahoe Info.

Annual Lake Tahoe TMDL Implementation, Workplan, Reporting and Administration

NDEP will continue in its efforts for implementing the Tahoe TMDL program. Within Nevada, NDEP coordinates work with NDOT, Washoe County, Douglas County, and the Tahoe Regional Planning Agency (TRPA). Annual and periodic review and approval of registered BMPS are complete by NDEP 319 staff (specifically NDOT 1 year road registrations, Kingsbury General Improvement District (KGID), Douglas County and Washoe County's 5-year Road Registrations. These actions all result in the implementation of the Tahoe TMDL projects that are aimed at reductions of urban upland FSPs and nutrients. The current rate of implementation has led to approximately credits of 75 per year from Nevada stakeholder (which amounts to ~190000 lbs FSP, 1470 lbs of nitrogen and 600 lbs. of phosphorus every year).

NDEP will continue in its committed collaboration with the Lahontan Water Board to effectively administer the Lake Tahoe TMDL Program. The TMDL Management System is a coordinated set of procedures that enable effective and transparent adaptive management of Lake Tahoe TMDL implementation. These procedures enable program adjustment in response to new relevant scientific or technical findings, challenges identified by implementing partners, or altered future conditions (either natural or anthropogenic). NDEP staff also work in coordination with the Lahontan Water Board to annually produce the Finding Recommendations, TMDL Performance Report, and Decision Record Memo.

Stakeholder engagement and interaction is critical for the success of the TMDL Management System. Stakeholders, including funders, implementers and scientists all play an important role in providing input and feedback to improve program operations, and thereby ensuring clarity restoration proceeds in an efficient manner and expenditures of public funding on water quality improvements are justified.

NDEP also will continue to seek and fund projects (solely or in partnerships) within Tahoe basin watersheds in Nevada to protect or improve upland and headwater stream function (identified sources of FSP and nutrients).

Major milestones associated with the implementation of the Tahoe TMDL over the next five years include the following:

- Benchmarking the Credits and Clarity measures in 2026 and initiating the evaluation of the 15th year clarity challenge.
- Working with urban implementing partners to execute updated ILAs for the 2027-2031 period.
- Report accomplishments on an annual basis (in GRTS as a TMDL project and annual reports).
- Conducting a coordinated evaluation of the overall TMDL program (2028) that will lead to the TMDL planning over the next years. The TMDL evaluation will guide NPS 319 efforts in the development of the next SMP (2031-2036) regarding Lake Tahoe efforts
- Utilizing the Tahoe Science Advisory Council to help develop a "road map" to adaptively manage the Lake Tahoe TMDL including updating the Lake Tahoe Watershed Model and assessment of source loading and other factors driving lake clarity.

4.4 TRUCKEE RIVER WATERSHED

The Truckee River begins as a singular outflow from Lake Tahoe in Tahoe City, California. The river flows north through Truckee and northeast down and through the mountains along the Interstate 80 corridor to the Nevada state line. The river then continues east through the cities of Reno, Sparks, and Fernley, and then turns north again through the Pyramid Lake Paiute Reservation, ultimately terminating in Pyramid Lake. The Truckee River is approximately 121 miles long and the drainage basin is approximately 3,060 square miles, about 2,300 of which are in Nevada. About 25% of the basin is in California, and the remaining is in Nevada.

The Truckee River and its tributaries provide numerous beneficial uses for the region including watering of livestock, irrigation, propagation of aquatic life, recreation involving contact with the water, recreation not involving contact with the water, municipal and/or domestic supply, industrial supply, and propagation of wildlife. The Truckee River and tributaries are impaired for phosphorus (10), *E. Coli* (8), arsenic (7), beryllium (7), temperature (6), boron (5), TDS (4), cadmium (4), nitrogen (3), pH (3), iron (3), manganese (3), turbidity (3), mercury (2), dissolved oxygen (1), barium (1), selenium (1), sulfate (1).

Population growth in the region has been increasing steadily which can put the Truckee River and its tributaries at risk of increased NPS pollution inputs due to increased coverage of urbanized and impermeable surfaces. The percent of population change in Washoe County between 2010 and 2022 was 14%, emphasizing the importance of land use planning, environmental protection, and NPS investments with the conversion and development of undeveloped open space to urbanized areas.

The Truckee River watershed provides unique and valuable habitat for multiple threatened or endangered species including Northwestern Pond Turtle (proposed threatened species), Cui-ui (endangered species), Lahontan cutthroat trout (threatened species), Carson wandering skipper (endangered species), Yellow-billed cuckoo (threatened species), and Webber's Ivesia (critical habitat) (https://ipac.ecosphere.fws.gov/location/HYVO6BSZTNHOFPC5TZIATN32EE/resources#endangered-species).

The Truckee River also provides 80-85% of drinking water to approximately 450,000 people throughout the Truckee Meadows. Additionally, this watershed contains six upstream reservoirs and 89 production wells in nine groundwater basins to meet the demand of water throughout the region (https://tmwa.com/wp-content/uploads/2020/11/TMWA-WRP-2020-Final.pdf).

There are also numerous partnering organizations that demonstrate a willingness and capacity to implement water quality improvement projects including, but not limited to, One Truckee River, Keep Truckee Meadows Beautiful, Truckee Meadows Regional Planning Agency, Washoe County, City of Reno, City of Sparks. Additionally, other funding sources are available for water quality improvement projects within the watershed including Truckee Meadows Water Authority's Truckee River Fund and Bureau of Reclamation Water Smart Grants.

In 2024, the U.S. Environmental Protection Agency conditionally approved the *Truckee River Tributary Alternative Plan* as consistent with the requirements of an alternative watershed-based plan. This plan provides a framework for implementing best management practices and tracking progress toward improving water quality within key tributaries to the Truckee River. The plan may be referenced by project sponsors when developing and submitting proposals for § 319 funding to support implementation activities identified within its priority sub watersheds. The conditions necessary to use the Alt plan include:

- Updated tributary profiles
- 9 E compliance Checklist for the tributary profiles
- The source water protection evaluation (#of wells /source water intakes impacted by activities)

4.6 WALKER RIVER BASIN

The East and West Forks of the Walker River drain out of the Sierra Nevada north of Mono Lake in California, connecting to form the main stem upstream of Yerington, Nevada. The river continues adjacent to the Mason Valley Wildlife Refuge and flows through Paiute Tribal land before terminating in

Walker Lake in Mineral County. The watershed area covers approximately 4050 square miles, and the primary land use is agriculture. Approximately 25% of the basin lies in California; the remainder is in Nevada.

The East and West forks of the Walker River provide numerous beneficial uses for the region including recreation involving contact with the water, recreation not involving contact with the water, watering for livestock, irrigation, municipal and/or domestic supply, and propagation of wildlife. Identified issues for the East and West Walker River include nitrogen and/or phosphorus, turbidity and metals. There are three public water systems in the watershed that supply ~847 visitors and residents located within the Walker River State Recreation Area, the Walker River Paiute Tribe and Shurz Elementary School.

The Walker Basin watershed provides unique and valuable habitat for multiple threatened or endangered species including Northwestern Pond Turtle (proposed threatened species), Lahontan cutthroat trout (threatened species), Greater sage-grouse (proposed threatened species), Yellow-billed cuckoo (threatened species) and the Sierra Nevada Fox (endangered). Segments of the Walker River are listed as impaired due to exceedances in total phosphorous, total suspended sediments, and temperature.

NDEP is establishing a working relationship and collaborative effort with NDSP and Walker Basin Conservancy to create EPA 9-element watershed management plan(s) for 12,000 acres of the Walker River State Conservation Area which was acquired in 2017. These collaborations are expected to lead to the prioritization and implementation of restoration projects along 29 miles of the East Fork of the Walker River. Currently, NDEP also is working with the Smith and Mason Valley Conservation Districts to implement small-scale bank stabilization projects on the West Walker River and will be seeking partnerships to plan and implement watershed plans on the West Fork.

NDEP is also participating in the Walker Basin Workgroup (facilitated by Walker Basin Conservancy) which establishes key conservation and land management priorities in the basin related to water quality, water quantity, wildlife habitat and special status species. This stakeholder group consists of over 80 members representing federal, state, local, public and private agencies/organizations.

NDEP is focusing on reducing nutrients and sediment in the Walker River through implementation of water quality improvements and channel restoration through coordination with our partners that are active in the watershed.

4.7 SNAKE RIVER, HUMBOLDT RIVER, BLACK ROCK, GREAT SALT LAKE AND NORTHWEST REGION BASINS

These watersheds (HUC8 Basins) cover large expanses of Nevada yet have not been targeted areas of NPS pollution management by the 319 programs over the past several years. However, these watersheds contain valuable natural resources that serve many beneficial uses supporting the highly valued ecosystems and the economy of the state. Large expanses of these watersheds are private lands that often interface with the larger expanses of public lands managed by BLM and the US Forest Service.

Agriculture throughout this area often consists of Cattle and sheep/herd management with some Hay and Alfalfa production in the Valleys of the Large Basin and Range provinces. The water quality issues identified in the integrated report for this area mostly include temperature, total phosphorus, total suspended solids and e. *coli* as sources of waterbody impairments. Many of these water quality issues are associated with waterways having highly erodible banks due to the composition of the sage brush steppe that cover vast expanses of Nevada. Thus, non-point sources of pollution can often be addressed by common BMPs utilized over vast areas of these Basin's landscapes.

NDEP-NPS efforts have occurred in some of these watersheds in the past and the NPS program will prioritize efforts aimed at devoting 319 grant resources that can aid in the attainment of stakeholder's economic, conservation and management aims across the entire state. To these ends NDEP has already started planning efforts in smaller scale watersheds (HUC-12s) targeting localized issues raised by local conservation management groups and Tribes. Specific areas targeted already include the Owyhee River Basin, the Humboldt River (near the town of Elko), McDermitt Creek and Peavine Creek (in the central basin). Once plans are developed in these areas (and in addition areas as outlined in prior sections-implementation work will be pursued).

4.8 STATEWIDE IMPLEMENTATION ACTIVITIES

4.8.1 HARMFUL ALGAL BLOOM IDENTIFICATION AND MITIGATION

HABs are identified as an emerging contaminant in the 2020-2024 Nevada SMP. Over the 2026–2031 period, HABs are identified as a priority consideration in planning and project work. BWQP has observed increases in cyanobacteria bloom frequency and magnitude since 2018. Increased inputs of nutrients like nitrogen and phosphorus can lead to eutrophication, promote cyanobacterial growth and increased occurrences of HABs. Sources of nutrients include agriculture and urban runoff, wastewater, fossil fuels, sediment discharges, and septic tanks. Low flows, stagnant water, increased intensity and duration of sunlight, and sustained high temperatures create the ideal conditions for HABs. Changing temperatures and changing precipitation patterns will continue to make addressing this emerging issue critical to protecting human and ecosystem health.

Identified as a national NPS Program goal and priority in the EPA's *Nonpoint Source Program and Grants Guidelines for States and Territories* draft revision release October 30, 2023, the 319 Program plays an important role in reducing nutrients reaching Nevada's surface waters. 319 grant funding applied to the development of a satellite-based detection and dynamics assessment tool, when combined with statewide efforts within the BWQP branches (SAM and BAM Branch), will enable the identification of sources and other factors contributing to excess nutrient delivery, which is the initial critical step to being able to control HABs. Work supported by NPS program and coordinated with statewide partners (Nevada Department of Health and Human Services, Office of State Epidemiology; NDSP; NDOW; Nevada Department of Agriculture) will aid in proactively protecting communities, watersheds, and

waterbodies from the future increased threat of HABs exacerbated by fire, drought and flood conditions.

Year 1 Goal – Complete development of satellite based remote sensing tool.
Objectives and Milestones:

- Coordinate with developer to complete implementation of tool.
- Modification of existing database to store satellite data and produce reports.
- Begin collecting data and pinpointing areas of high occurrence.
- Use built-in analysis tools to correlate bloom occurrence with nutrient concentrations and other environmental factors.

Year 2 Goal – Prioritize areas to develop WBPs
Objectives and Milestones:

- Use RPS to help rank/prioritize targeted NPS reduction potentials
- Use satellite tool built in analysis capabilities in conjunction with RPS screening to pinpoint watersheds for NPS projects.
- Solicit watershed plans or the inclusion of specific measures in existing watershed plans to address identified /reoccurring HABs

Year 3 Goal – Get WBPs approved targeting highest priority areas
Objectives and Milestones:

- Implement BMPs in context of HAB-based WBP.

Year 4 Goal - Implement BMPs in context of HAB based WBP.
Objectives and Milestones:

- Continue implementing BMPs in context of HAB-based WBP.
- Formalize/Establish the monitoring database of HABs and the communications

Year 5 Goal - Evaluate NPS reductions
Objectives and Milestones:

- Evaluate NPS reductions to mitigate/prevent HABs and inform future WBPs.
- Plan next 5 years

4.8.2 BACTERIA

BWQP has developed draft TMDLs for bacteria in water bodies listed as impaired for such pollutants. These impairments occur in multiple areas across the state. The associated TMDL implementation plans generally align with broader goals to enhance riparian function and reduce erosion, both of which support surface water protection. Therefore, the NPS Branch will incorporate bacteria TMDL information into its watershed prioritization and implementation efforts. By aligning TMDL implementation with NPS planning, the program can pursue co-benefits—such as streambank stabilization, riparian restoration and wildlife habitat improvements—that also contribute to reducing bacterial loads in impaired waters.

CHAPTER 5. GOVERNMENT AGENCY & TRIBAL COORDINATION

Effective management of nonpoint source pollution through a watershed-based approach requires robust coordination between national, state, local governments, and tribal entities. Such collaboration ensures comprehensive resource sharing, policy alignment, and the integration of diverse perspectives and traditional ecological knowledge (TEK), which are critical to addressing pollution challenges holistically. The collaboration will also provide more clarity on funding opportunities to critical technical partners forming and implementing 9E-watershed-based plans.

In the following 5 years, NDEP is committed to continuing the integration of existing and additional federal/state agencies, local government policies and regulations as well as to leverage funding and co-funding opportunities. Accomplishing the goals and objectives established in the Plan requires effective integration of all water quality related programs throughout BWQP, NDEP and other local, state and federal agencies and environmental organizations, which will be discussed in more detail in subsections below.

5.1 NDEP COORDINATION

Bureaus and programs across NDEP contribute to water quality protection and assist in achieving the NPS Program goals. The general framework of program integration is shown in Figure 3.1 and is described in detail below.

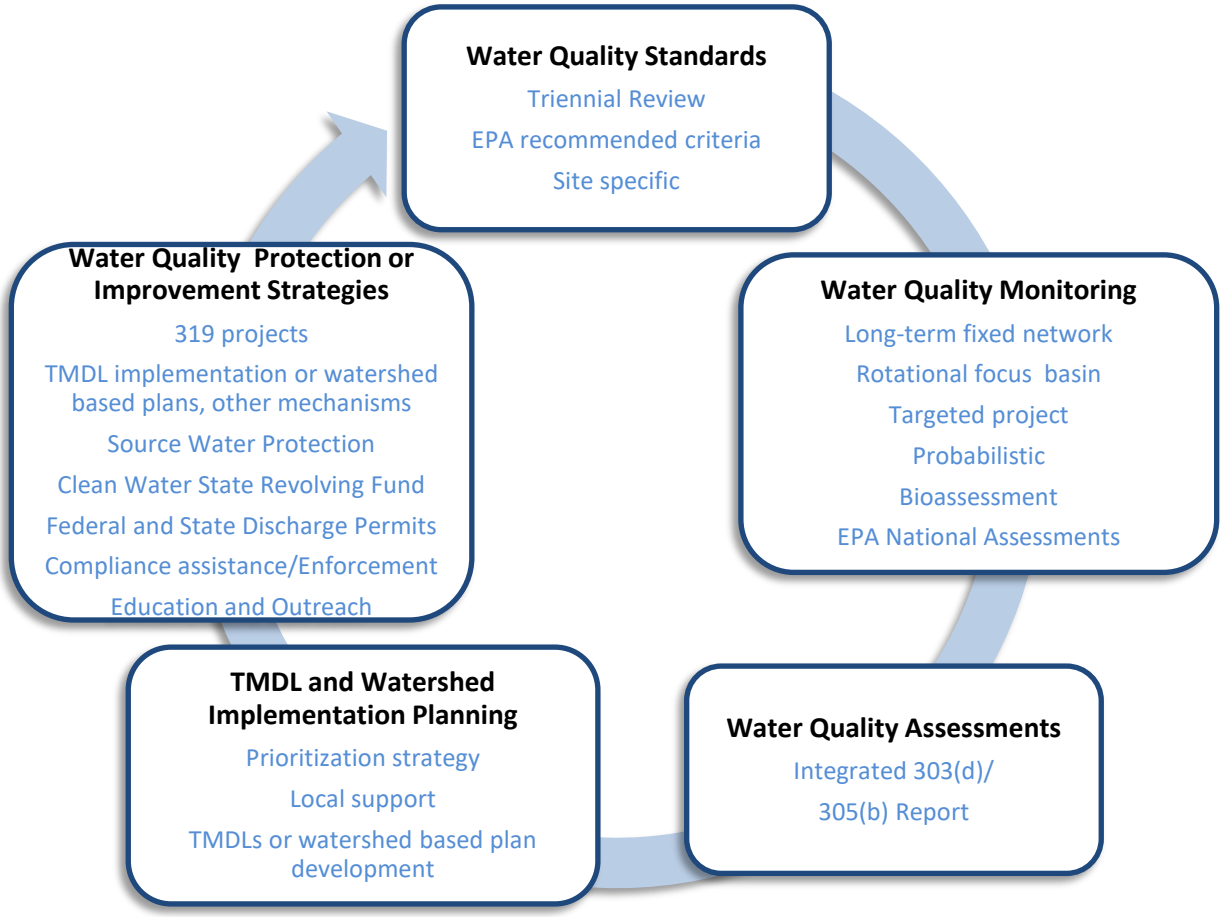

Figure 5.1. NDEP's Water Quality Planning and Management Framework

The Standards Assessment and Monitoring (SAM) Branch plays a central role in identifying water quality impairments and documenting improvements through development of the Integrated Report and Triennial Review. SAM activities provide the foundation for the Clean Water Act Section 303(d) list of impaired waters, as well as identifying waters that are meeting designated beneficial uses. This information is critical for informing Nonpoint Source (NPS) Program priorities, including where watershed-based planning, TMDL development, and implementation efforts are most needed. Coordination between SAM and the NPS Branch ensures that monitoring data, assessment decisions, and emerging issues—such as harmful algal blooms (HABs)—are incorporated into planning and management actions.

In addition, NDEP coordinates the Bioassessment and Monitoring Branch (that also includes Harmful Algal Bloom monitoring), to support a multi-level approach to water quality management. This coordination strengthens data sharing, improves early detection and communication of emerging issues, and helps align monitoring, assessment, and implementation activities across programs.

TMDL implementation plans and watershed-based plans (WBPs) characterize impairment problems, identify pollutant sources, and define projects needed to reduce pollutant loads so that water quality standards can be achieved. These plans are used to prioritize watershed activities and support the use of CWA Section 319 funding to implement projects. The EPA 2013 Nonpoint Source Program and Grants Guidelines for States and Territories require that at least 50 percent of a state's 319 funding allocation be used to implement EPA-approved watershed-based plans containing the nine key elements identified in Appendix C of the Guidelines. NDEP will continue to work with partners to identify waters where TMDL implementation or WBPs will be most effective, and to support development of plans that meet EPA requirements and can guide successful on-the-ground restoration and protection efforts.

5.2 FEDERAL AGENCY COORDINATION

Numerous federal agencies have responsibility for water quality protection programs throughout Nevada. The Bureau of Land Management has major land ownership in the state; the Bureau of Reclamation manages large water infrastructures and provide power and water for cities; the Fish and Wildlife Service, Forest Service, Park Service, and Natural Resources Conservation Service are critical partners who share many of the water restoration and conservation data, goals, and technical expertise on Best Management Practices. The NPS program seeks to establish tangible outcomes from specific coordination efforts identified in section 6.2 Milestones and Timeframes to Guide Activities of the Plan.

5.2.1 BUREAU OF LAND MANAGEMENT (BLM)

The major land management agency in Nevada is the BLM with jurisdiction of about 68% of the total land surface area. BLM is required to comply with provisions of the CWA and is required to meet the water quality standards and other state rules and regulations established by NDEP. All BLM policies and procedures must be consistent with the Federal Land Policy and Management Act of 1976 and all other laws which regulate the use of public lands including the National Environmental Policy Act requirements. BLM administers permits and leases held by ranchers who graze livestock on BLM allotments. Permits and leases generally cover a 10-year period and are renewable if the BLM determines that the terms and conditions of the expiring permit or lease are being met. NDEP and BLM staff meet regularly to discuss resource concerns and potential water quality improvements.

5.2.2 BUREAU OF RECLAMATION (BOR)

The BOR is responsible for several water storage and irrigation projects in Nevada in the Truckee, Carson, Humboldt and Colorado River Basins. BOR works under the Government Performance and Results Act to manage water quantity and quality related to these projects and can provide financial and technical assistance to state and federal agencies for water quality investigations, monitoring and planning, and local irrigation project operation and management improvements. NDEP will work with BOR as necessary to address NPS concerns.

5.2.3 FISH AND WILDLIFE SERVICE (USFWS)

FWS administers the Endangered Species Act (ESA) for plant and animal species. The ESA requires that recommendations for conserving fish and wildlife resources be given full consideration in the decision-making process and allows FWS to address any aspect of a proposed project, including protection of water quality to maintain fish or wildlife resources. The Fish and Wildlife Coordination Act (FWCA) mandates that federal agencies consult with them prior to initiating an action that may have an adverse effect on fish and wildlife resources. FWS also administers a variety of natural resource assistance grants to governmental, public and private organizations, groups and individuals. NDEP NPS program will seek more coordination with FWS on projects where mutual water quality and habitat improvement goals exist. Such coordination will be documented through annual work plan development and reporting.

5.2.4 FOREST SERVICE (USFS)

USFS manages about 10% of the total land surface area in Nevada. The headwaters of many of Nevada's surface waterbodies are located on USFS lands. USFS is required to comply with provisions of the CWA and is required to meet the water quality standards and other state rules and regulations established by NDEP. USFS identified priority watersheds for protection or restoration under the 2011 Watershed Condition Framework and implements several programs to address NPS pollution, which include:

- Burned Area Emergency Response Program to help stabilize soil and protect water quality following a wildfire on USFS lands.
- Healthy Forests and Rangelands–Hazardous Fuels Reduction and Landscape Restoration Program to treat the excessive accumulation of hazardous or unusually flammable fuels.
- Watershed Restoration Program to improve watershed conditions using upland and in-stream treatments.
- Road Maintenance Program to improve travelability and reduce resource damage; and
- Legacy Road and Trail Remediation Initiative for road decommissioning and road and trail repair in environmentally sensitive areas with water quality issues.

In 2009, NDEP entered into a Memorandum of Agreement with the USFS Intermountain Region to increase coordination and collaboration between NDEP and the USFS to prevent, mitigate and control nonpoint source pollution and protect water quality on National Forest System lands in the State of Nevada. NDEP will seek to renew the efforts outlined in that MOU, perhaps using the Shared Stewardship Framework as the means to coordinate joint conservation efforts on public lands moving forward.

5.2.5 NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

NRCS assists landowners in the planning and application of conservation practices to protect soil and water resources. To do so, NRCS provides technical, educational, and financial assistance through a variety of Farm Bill programs including the Environmental Quality Incentive Program (EQIP), Regional Conservation Partnership Program (RCPP), and Agricultural Conservation Easement Program.

EPA and NRCS initiated the National Water Quality Initiative (NWQI) in 2012. The NWQI encourages coordination between 319(h) and Farm Bill programs to address NPS pollution. NDEP has coordinated with NRCS to select sub watersheds to focus efforts in the past. NDEP will continue to coordinate with NRCS to identify project opportunities through other NRCS Farm Bill programs and will participate in the Nevada State Technical Advisory Committee to develop projects and partnerships with tangible outcomes.

5.3 STATE AGENCY COORDINATION AND PARTNERSHIPS

5.3.1 DEPARTMENT OF AGRICULTURE (NDA) DIVISION OF WATER RESOURCES (NDWR)

The Nevada Department of Agriculture (NDA) is responsible for preserving, protecting, and promoting agriculture throughout the state. The NDA educates the public and oversees the agricultural industry, a primary water user in the state. The department's responsibilities include upholding plant and soil health by protecting crops and natural resources from pests, weeds, and diseases through regulation and management programs. The NDA promotes environmental stewardship by fostering sustainable agricultural practices and conservation of natural resources. Additionally, it oversees the registration, distribution, and application of pesticides and fertilizers to ensure the protection of human health and the environment. Through its regulatory authority, the NDA facilitates critical land management activities, including crop production, weed management, and grazing.

5.3.2 DEPARTMENT OF AGRICULTURE (NDA) DIVISION OF WATER RESOURCES (NDWR)

The Division of Water Resources protects, manages and enhances the State's water resources for Nevada's citizens through the appropriation and reallocation of public waters. Several efforts within the Division have overlapping interests and actionable plans that intersect with NDEP's interests in reducing NPS pollution. For instance, the State's hazard mitigation plans have actions that lead to connecting waterways with their flood plain to mitigate flood impacts on infrastructure and recognizes NPS issues associated with flood waters reaching critical source areas of contaminants not normally connected to the waterways. These plans and interests overlap with the 319 program's interests as they also have co-benefits to water quality due to NPS pollution reductions. Moreover, planning for and implementing measures for drought resiliency are major efforts within the Division. Drought resiliency and floodplan management strategies and associated best management practices are to be considered in planning efforts for NPS reductions. Thus, NPS program will seek opportunities to work together in planning and in projects having co-benefits.

5.3.3 DIVISION OF NATURAL HERITAGE (NDNH)

Nevada Division of Natural Heritage (NDNH) Wetland Program is responsible for collecting data, stakeholder collaboration, and conservation planning for wetlands throughout the state. Wetlands are crucial aquatic features serving a variety of environmental services including water quality and water quantity regulation, provisioning of wildlife habitat, nutrient cycling, carbon sequestration, and recreation opportunities. Wetlands throughout Nevada (Figure 3.2) have been highly impacted by conversion of land use and land cover- despite the importance of these aquatic features across the landscape. Wetland protection will be one of the prioritization criteria considered in both planning and implementation work supported by 319(h) funding. Moreover, NPS program will work with NDNH to prioritize and expand statewide wetland protection and restoration activities. Additionally, NPS seeks to work with NDNH by facilitating coordination with other stakeholders and agencies (federal and state) over the upcoming years.

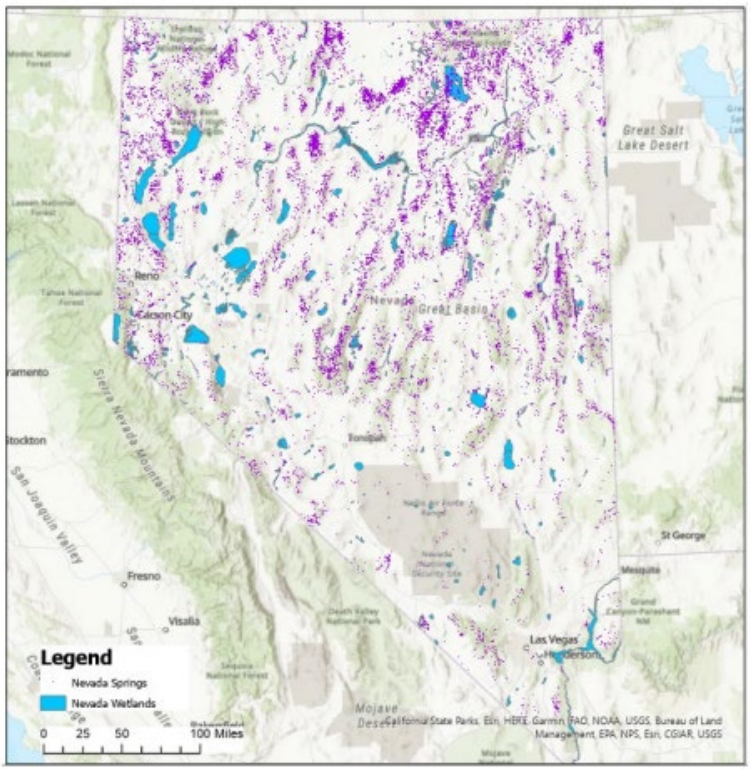

Figure 3.2. Known springs and wetlands in Nevada.
Courtesy of the Springs Stewardship Institute (springs) and Desert Research Institute (wetlands).

5.3.4 DIVISION OF STATE LANDS (NDSL)

The Nevada Division of State Lands (NDSL) provides land and land use planning services to the state, its agencies and its people. NDSL administers the Tahoe Bond Acts of 1986 and 1996 which authorized the sale of more than $50 million in bonds for the acquisition of sensitive lands and funding erosion control and stream restoration projects in the Lake Tahoe basin.

Special vehicle license plates to benefit Lake Tahoe are available through the Department of Motor Vehicles. These fees go into a dedicated Lake Tahoe fund, which is administered by NDSL for projects

and programs that will preserve or restore the natural environment of Lake Tahoe. These funds are available as grants.

NDEP will participate in technical review of proposed water quality improvement projects seeking funding from NDSL grant programs to ensure consistency with NPS goals and will seek partnering in watershed improvement projects.

Beyond Lake Tahoe, NDSL properties along Nevada's rivers and streams are eligible for improvement activities.

5.3.5 DIVISION OF FORESTRY (NDF)

The Division of Forestry (NDF) is charged with protecting 8.7 million acres of non-federal land from fire and serious environmental degradation. NDF provides technical assistance to landowners on forest management and administers a nursery program from which trees are supplies for greenbelts, environmental restoration and other conservation projects. NDF, through the Department of Prisons Conservation Camp Program, supplies crews for a variety of activities including resource conservation and restoration projects. NDEP coordinates with NDF on water quality improvement and habitat restoration projects.

5.3.6 DIVISION OF STATE PARKS (NDSP)

The Nevada Division of State Parks (NDSP) manages, protects, operates and maintains 27 parks within the Nevada State Park System. NDEP staff approached NSP administration to identify state park lands that may benefit from water quality restoration that would result in NPS pollution reduction. The newly acquired Walker State Recreation Area lands that feed drainage from historic, irrigated ranch lands to Walker Lake were identified as an opportunity to collaborate. Walker River State Recreation Area spans 12,000 acres of rangeland along 28 miles of the East Walker River.

5.3.7 CONSERVATION DISTRICT PROGRAM (CDP)

The Conservation District Program (CDP), housed in the Department of Conservation and Natural Resources, provides administrative support to the State Conservation Commission (SCC) and assists the State's 28 local conservation districts in the development and implementation of programs to conserve Nevada's natural resources. The emphasis of CDP is on voluntary compliance and individual technical assistance. Some districts have taken an active role in riparian area management. The NPS Program will seek substantial coordination efforts from the local conservationists to develop planning and implementation efforts (described below in more detail).

5.3.8 DEPARTMENT OF TRANSPORTATION (NDOT)

The Nevada Department of Transportation (NDOT) is charged with assuring an efficient transportation system of roads that provides mobility the public. NDOT is required to implement

BMPs designed to control runoff from their road network that minimizes the release of pollutants to surface water and groundwater under an National Pollutant Discharge Elimination System (NPDES) permit from NDEP. NDOT's environmental section ensures that projects comply with state, federal and local environmental regulations. NDOT is active in major wetland creation and enhancement projects to mitigate the effects of highway construction on wetland areas of the state and is a key implementer of the Lake Tahoe TMDL. NDEP coordinates with NDOT on projects related to the control of NPS pollutants from their road systems, especially in the Lake Tahoe Basin.

5.3.9 DEPARTMENT OF WILDLIFE (NDOW)

The Nevada Department of Wildlife (NDOW) was established to preserve, protect, manage and restore the wildlife resources of Nevada. The goals of NDOW are to: 1) serving Nevada's public, 2) protect, conserve, and enhance Nevada's wildlife and habitat, 3) expanded funding and capacity, and 4) staff investment and engagement. NDOW can offer technical, financial, legal and educational assistance in NPS pollution management programs and projects. NDEP coordinates with NDOW where shared mutual goals of water quality improvement and habitat restoration coincide.

5.4 TRIBAL COORDINATION AND PARTNERSHIPS

Twenty-eight Native American Tribes, Bands and Colonies are located within the boundaries of the State of Nevada. These are sovereign entities, many of which implement in-house programs to manage tribal natural resources, including water quality. In 2003, with funding from EPA, NDEP and the Inter-Tribal Council of Nevada established the Tribal Liaison Program to facilitate coordination and cooperation between the State and Tribes in Nevada to address environmental issues. NDEP will continue to work with Tribes through EPA, and the Nevada Inter-Tribal Council Liaison to address water issues and nonpoint source pollution management. NDEP will continue to pursue projects that facilitate good neighbor practices and will identify waters that cross interstate and tribal boundaries as waters to be given enhanced considerations when considering project and planning prioritization activities.

5.5 LOCAL & NON-GOVERNMENTAL ORGANIZATIONS AND PRIVATE PARTNERS-

The NPS Program has established strong long-term relationships with agencies, organizations, and the private sector. A priority in this Plan is to continue existing successful partnerships for the implementation of water quality improvement projects. In Nevada, locally led watershed efforts with these stakeholders are the key to successful implementation of projects. Where there is local interest, BWQP encourages and supports the development of WBPs or alternative strategies to improve water quality. Through grant funding, NDEP also supports many existing partners to implement local water quality improvement projects. NDEP will continue to build these relationships to accelerate watershed plan development and improvements.

Counties are explicitly and importantly recognized as key partners in natural resource and water quality management. The NPS Program will seek direct coordination with county governments, including natural resource managers and, where applicable, county commission natural resource committees, to ensure local perspectives and priorities are reflected in watershed planning and project implementation. Local 208-designated entities also serve as essential partners in linking regional water quality planning with watershed-based management in several locations. Coordination among these entities is intended to align NPS plans and efforts with county resource management efforts, state water quality objectives and reinforce the voluntary, incentive-based approaches that underpin the NPS Program.

In addition to in-state partnerships, the NPS Program recognizes that many priority watersheds in Nevada cross jurisdictional boundaries and require coordination with neighboring states to effectively address nonpoint source pollution. Key interstate systems include the Walker, Carson, and Truckee Rivers (California–Nevada), the Snake River Basin (Idaho–Nevada), shared watersheds with Oregon (e.g., McDermitt Creek and associated tributaries), and the Virgin River (Arizona–Nevada). NDEP will seek opportunities to coordinate with partner agencies in these states—including state water quality agencies, federal land managers, and local stakeholders—to support consistent watershed characterization, data sharing, and, where feasible, aligned implementation strategies. These efforts are intended to build upon existing TMDLs, watershed-based plans, and regional initiatives, and to promote complementary, voluntary actions that improve water quality across shared basins

CHAPTER 6: PROGRAM ADMINISTRATION

6.1 OPERATIONS

6.1.1 PROGRAMMATIC AND POTENTIAL PARTNERSHIP FUNDING SOURCES

The State of Nevada provides no direct state funding to NDEP to address nonpoint source related water quality problems. NDEP's NPS Program is supported entirely by 319(h) grant funds. The required non-federal match for the 319 grant currently is provided by project implementers which include other state and local agencies, environmental organizations and individuals through a combination of cash and in-kind contributions. Other sources for NPS work or matching funds will be sought in the implementation of the next five (5) years of activities. Specific potential partners are outlined below.

- **State Revolving Fund**

  The Clean Water State Revolving Loan Fund (CWSRF) was created by Congress in CWA amendments of 1987 to replace the Construction Grant Program. The program provides loans at or below market rate and other forms of financial assistance to municipalities to assist them in financing the construction of wastewater treatment works and projects to

control non-point sources of water pollution. These funds are not sufficient to satisfy all of the State's wastewater treatment needs and are currently only utilized for infrastructure projects.

- **Lake Tahoe Environmental Improvement Program (EIP)**
  The EIP is a long-term plan that identified over $900 million in projects and programs needed to improve the environment at Lake Tahoe. The cost of implementing the EIP has been apportioned between the Federal Government, the States of Nevada and California, local governments, and private property owners. Nevada's commitment is $182 million.

- **Conserve Nevada:**
  This program is a state-funded grant initiative that supports conservation, restoration, recreation, and cultural resource projects across Nevada. Managed by the Nevada Department of Conservation and Natural Resources, it is funded through state-issued general obligation bonds authorized under Assembly Bill 84 (2019). The program supports a wide range of eligible activities, including trail development, wetland and river restoration, land acquisition, and wildfire resilience. Grants are available to local governments, nonprofits, state agencies, and tribes through a competitive process. In recent years, restoration efforts have been jointly supported by both the Conserve Nevada Program, 319, and other funding. Going forward, the NPS Program will continue to actively seek opportunities to coordinate and leverage Conserve Nevada funding in support of integrated watershed-scale restoration projects that protect and improve state water resources over the five-year period of this Plan.

- **Abandoned Mines Land Program:**
  Established by the Legislature in 1987 under NRS 513, Nevada's Abandoned Mine Lands (AML) program is tasked with inventorying, assessing, and securing hazardous mine sites—such as shafts and waste dumps—across the state. It is funded through mining claim fees, a disturbance fee, and partnership agreements, rather than general fund dollars, and focuses on both physical safety and environmental hazards on public and private lands. The NPS Program will continue to seek opportunities to address abandoned mine-related pollution by leveraging the state's Good Samaritan provisions and the federal Good Samaritan Act of 2024. These tools offer a pathway to collaborating with non-liable partners on the remediation of abandoned hardrock mine impacts with potential to degrade Nevada's waterways.

- **Other Lake Tahoe Specific Funding**
  Nevada Division of State Lands (NDSL) administers two Tahoe bond acts, the Lake Tahoe license plate program, and the excess coverage mitigation program. The Tahoe bond acts approved by the voters in 1986 and 1996 authorized the sale of more than $50 million in bonds for the acquisition of sensitive lands and funding erosion control and stream restoration projects in the Tahoe basin. The License Plate Grant Program is administered through an annual request for proposals process and usually has about $300,000 to $350,000 to disburse.

The Tahoe excess coverage mitigation program is funded by excess coverage mitigation fees forwarded from the Tahoe Regional Planning Agency. The objective of this program is to improve the water quality of Lake Tahoe through the retirement of land coverage and restoration of disturbed lands. This program acquires land and land coverage. NDEP will continue to explore how mitigation funding may complement NDEP's actions or be used as match on applicable BMP actions in the future.

NDEP will continue to work with local, state, and federal partner agencies to implement water quality improvement and erosion control projects through these funding sources and possible new sources as they are identified. The Nevada Governor's Office of Federal Assistance provides a statewide grant matching program that can support local applicants pursuing projects with NPS co-benefits.

6.1.2 SOLICITATIONS AND SELECTION OF PROPOSALS

The primary way the NPS Program has selected implementation projects and programs with partners to support is through an annual solicitation or Grant Funding Opportunity (GFO) process. The annual target dates have generally been in the mid to late summer with proposals due in the fall and selection of awards by winter/end of year. On occasion the solicitation timing has changed due to issues including funding availability.

Proposals received in response to solicitations are evaluated and ranked according to established criteria by a technical review panel that consists of NDEP NPS Program staff and the U.S. EPA Region 9 Nevada Project Officer. Primary criteria used to evaluate implementation projects include but may not be limited to:

- Potential for NPS pollutant load reductions.
- Extent of other agency collaboration and partnering.
- Extent of treatment of urban runoff or riparian habitat improvement.
- Anticipated amount of local match; and
- Commitment to maintenance of BMPs.

Other appropriate criteria are used to evaluate environmental education projects including the extent of anticipated impact and reportable metrics to show successful delivery of the program.

6.1.3 DIRECT FUNDING ACTIONS

The NPS program in Nevada has relied on a competitive grant process to request proposals for 319 subawards over the past decade. NDEP focused requests for proposals in the last several years for the development of watershed-based plans and implementation projects that will lead to measurable water quality improvements within impaired waters. Despite efforts to solicit proposals with targeted outcomes, the program traditionally only receives a few proposals for projects that are likely to have significant improvements in water quality and only a few that would result in completed watershed-based plans.

In the spirit of continuous improvement, NDEP will evaluate the grant solicitation process and determine if enhanced benefits could be realized by working directly with partners to identify and develop high priority plans and projects that achieve greater results than through a state-wide solicitation. Coordination with local external partners and stakeholders will continue as new high priority projects are identified through this process. We will also continue to work with other state and federal agencies to ensure that implementation and efforts are coordinated and mutually beneficial. The NPS program may seek and direct-fund high priority projects and watershed-based planning- especially in locations where repeated subawards have not resulted in significant improvements in water quality or in areas where recovery potential is high.

6.1.4 FINANCIAL AND ADMINISTRATIVE MANAGEMENT

The NPS Program implements appropriate financial and legal management of 319 grants and subawards. A structured, tiered network of financial reviews is strictly adhered to for all funded projects. Contract invoices requesting payment through the 319(h) grant subawards are initially reviewed by project Contract Coordinators, and upon their approval are forwarded to the BWQP Contract Manager for secondary review and approval. The payment request is then sent to NDEP's Office of Fiscal Management (OFM) for final review and payment. NDEP implements strict internal controls according to the Division administrative manual and complies with all state and federal grant reporting requirements and reports to EPA as required in appropriate financial reports.

6.1.5 GRANTS REPORTING AND TRACKING SYSTEM (GRTS)

Under the Terms and Conditions in Clean Water Act 319 grant, EPA requires the NPS Program to track programmatic and financial progress on CWA 319 grant subawards through their Grants Reporting and Tracking System (GRTS). The NPS Program uses workplans, subaward agreements and contract to track progress against milestones and goals, including reductions of NPS pollutant loadings and improvements to water quality achieved by implementing NPS pollution control practices. NPS programs also reports any budgetary and program changes to their EPA Project Officer and via GRTs. Annual §319 workplans, also filed in GRTS and made publicly available, will outline workplan and budget development, facilitation of watershed planning, oversight of implementation projects and subaward activities, and overall financial and programmatic management of the program. They also define requirements for tracking progress and completing required reporting deliverables to EPA.

6.1.6 OTHER EPA-REQUIRED REPORTING

NDEP reports to EPA to document incremental progress toward achieving annual grant milestones. Additionally, NDEP reports to EPA annually to document progress in achieving Plan and grant milestones including information submitted by outside agencies. NDEP will additionally begin evaluating the Plan for update needs based on new water quality assessment information and partnerships built with stakeholders. NDEP will submit a draft Plan update to EPA for review and discussion during the fifth year of Plan implementation. Once EPA comments and NDEP revises the

document, NDEP will submit the final updated Plan for the subsequent five-year implementation period (2026–2031).

Semiannual reports will consist of narrative description of progress toward the measures of success in Partnerships, Prioritization, and Planning and Implementation work (detailed in section 6.3 below). Such reports will also provide a narrative highlighting substantial developments in each of those categories including both successes and challenges experienced. The reports will also provide financial status on open Federal awards, listings of active and new subawards administered during the quarter as well as those subawards that were closed.

Annual reports will compile the significant achievements, compiled financial information and expenditures /resource allocations towards the three major categories of work outlined in this 5-year Plan and any new initiatives NDEP and partners may be pursuing.

The annual activities for the program are tabulated in the table below for reference and to see within the annual context.

TABLE 6.1 ANNUAL TIMELINE OF KEY NPS PROGRAM ACTIVITIES

Approximate Timing	Key Activity / Deliverable
January	Post Tahoe TMDL Annual Findings and Recommendations and Strategy and Decisions Record Memo
Late January	Submit Semi-Annual Progress Report (SAPR)
Late Winter (Feb–Mar)	Review and approve Tahoe TMDL Jurisdictional Declarations
Winter (Jan–Mar)	Issue subawards and contracts (following prior year GFO selections)
Late March	Compile and submit Annual GRTS reporting elements
Early Spring (Mar–mid-Apr)	Develop and finalize Annual Workplan
Spring	Integrate latest 303(d)/Integrated Report insights into planning and prioritization
Spring–Early Summer	Continue implementation of funded projects
Early Summer (June)	Review Tahoe's Annual Clarity Report
Mid-Summer (July)	Review Tahoe's State of the Lake Report
Late July	Submit Semi-Annual Progress Report (SAPR)
Mid–Late Summer	Launch Grant Funding Opportunity (GFO)
Late Summer (August)	Develop at least one NPS Success Story; participate in Lake Tahoe Summit
Late September (End of FFY)	Submit Annual NPS Program Report and Federal Financial Report (FFR)
Late Fall–Early Winter (Nov–Dec)	Proposal Review and Project Selection
Late Fall–Early Winter	Coordinate with EPA Region 9 on project selection
Year-Round (Ongoing)	Review and approve Tahoe TMDL Registrations
Year-Round (Ongoing)	Track project implementation (including site visits), expenditures, and GRTS updates

6.2 MILESTONES AND TIMEFRAMES TO GUIDE ACTIVITIES

6.2.1 PARTNERSHIPS MILESTONES AND TIMEFRAMES

The importance of forming working partnerships and networks for coordinating efforts and resources has been discussed in prior sections. Some of these partnerships- especially with local entities have been established and continuation of these efforts will be ongoing. However, the plan herein contains some new milestones that the program hopes to achieve as the next five (5) years of water quality work proceeds.

NRCS: Notably- the NPS Program aims to have more coordinated work with the NRCS-NWQI program, the BWQP SAM branch, as well as the BWQP Bioassessment and Special Projects branches. We also aim to coordinate with the NRCS-Source Water Protection Area (SWPA) program, the SAM branch and NDEP's Source Water Protection branch such that our efforts aid SWPAs in attaining their desired outcomes due to resource allocations by NRCS and NDEP.

In year one we aim to have a coordination agreement for monitoring and assessments (in the already established sites SWPA). In addition, in year one of this SMP we will have run scenarios using RPST to help identify areas that might be good candidates for the development\designation of another NWQI area in Nevada.

By year two we will have developed a list of candidate NWQIs (using NPS criteria as well as criteria for the NRCS) and hope to be working on WBPs for those watersheds- such that the NWQI designation process can proceed.

In years 3-5 we hope to work with coordinated partners (nominally landowners, NRCS, SAM, and NPS branches) to have the NWQI designated and to have implementation work begin therein. By targeting at least one more NWQI we aim to leverage the Nevada situation to obtain more federal support, beyond that available in the 319 grant and existing NRCS funding, for realizing gains in water quality.

CWSRF and SWSRF: Both SRF programs allocate significant resources to develop and maintain infrastructure helping water quality issues throughout the state. BWQP's NPS program has not had a history of having coordinated efforts to support NPS reduction actions with either of these programs within NDEP. Therefore, the NPS program hopes this status can be changed during the 2026–2031 period. Specific opportunities for partnering are already being explored and notional ideas with notional milestones have been identified/discussed. For instance, partnering and financing of "sponsored" CWSRF- NPS projects may be more attainable if language can be considered that may allow resources to be allocated to "eligible recipients" beyond just those municipalities that treat sewage. Moreover, a Debt Management Policy that allows lending rate forgiveness for SRF projects may allow rate incentives for municipality "sponsored" projects. In combination, proposed code

changes, such as these, may incentivize NPS attention across the state and may allow the release of future solicitations that outline such incentives (a milestone targeted for year 2 of the SMP; 2026).

Additional opportunities are being examined to determine if CWSRF projects are eligible to be credited for NPS "programs" or "projects". Several of these have clear water quality benefits related to NPS reductions. For instance, point source treatments that are recycled as a source water that ultimately will lead to less water being drawn from surface water sources is a means to maintain water quality in river. Additionally, conversion of septic systems to sewage that protects surface and groundwater are projects that may be counted as state-investments to minimize NPS pollutants (including the emerging pharmaceutical contaminants). As such, these projects could possibly be used to meet the match requirement for the 319 grants when funded from recycled monies and the current match requirement could possibly be lessened or dropped. Such actions could benefit local partners but could also lead to a diversification of projects and locations where matching funds and/or in-kind match have been hard to obtain or document. Additional challenges and barriers for coordinated NPS/SRF activities are likely to remain and be encountered as we seek to have CWSRF/SWSRF and NPS programs coordinated in the future.

BLM- USFS: A Shared Stewardship framework was entered into by Federal agencies and the State in 2019. The NPS Program seeks to participate in conservation efforts within these Priority Landscapes that have been designated by the stewardship work (Figure 6.1). Many of these areas overlap with the NPS program's existing and future interests in water quality improvement work. For instance, the Carson and Truckee River watersheds already overlap with the Shared Stewardship priority areas. As the NPS Branch looks at small watershed recovery potential in their prioritization work these designated areas will be a consideration for full watershed planning efforts. The gains that can be realized from such coordination include specific targets for water quality improvement when large, interagency projects are being undertaken (for instance when grazing for fuels reductions and rangeland improvement projects are undertaken by BLM, USFWS and USFS).

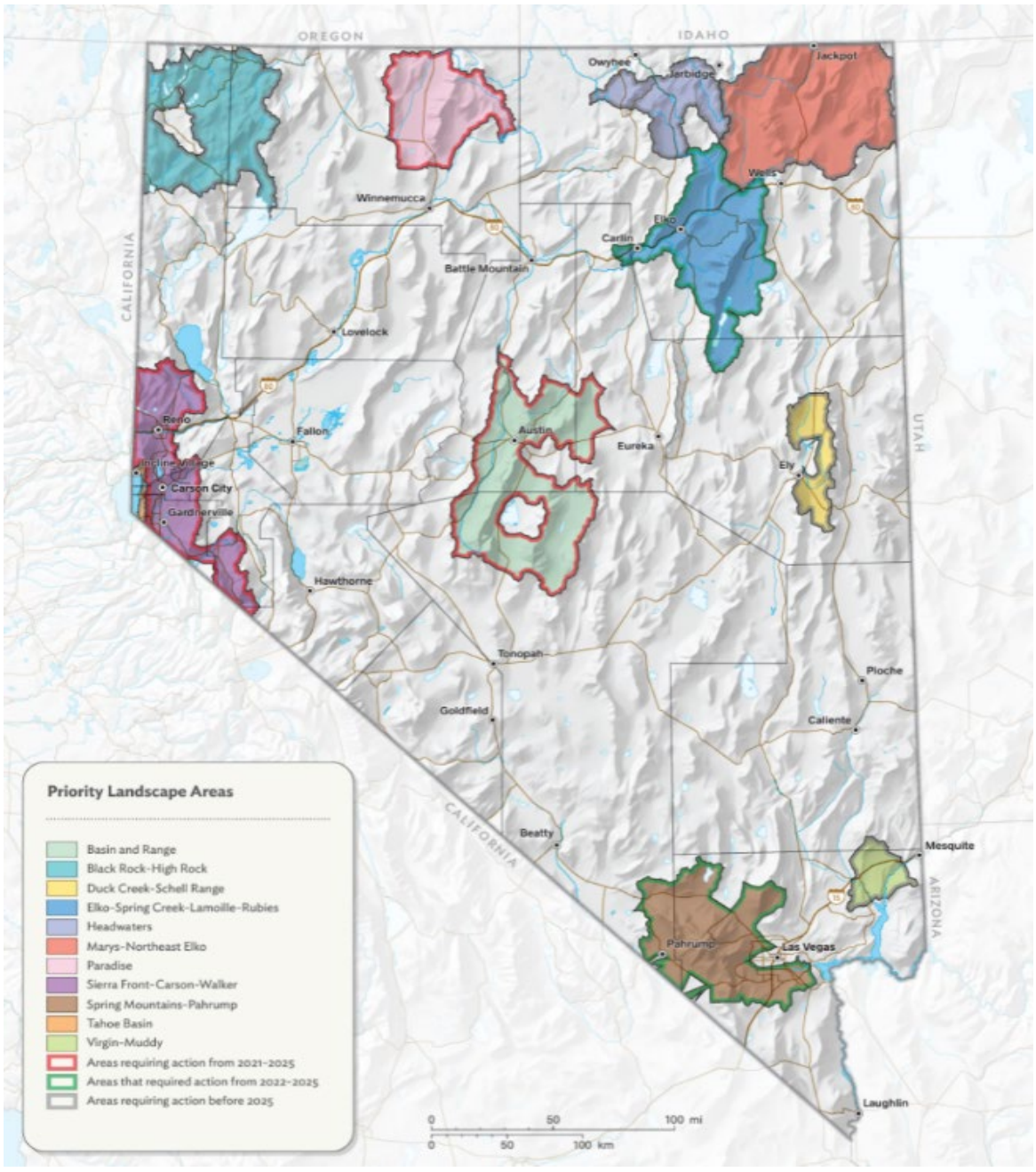

Figure 6.1. Priority Landscapes identified through the Shared Stewardship Framework.

BCA: The Nevada Division of Environmental Protection, Bureau of Corrective Actions (BCA) regulates underground storage tanks and provides oversight on remediation of leaking underground storage tanks (UST/LUST programs), provides oversight for Resource Conservation and Recovery Act corrective action cases, and provides certification of remediation consultants and UST personnel. BCA implements the Superfund Program and works with the U.S. EPA to manage the Carson River Superfund Site. BCA also oversees the Abandoned Mine Lands (AML) Program to address environmental problems at historic mine sites.

Figure 6.2. Abandoned Mine Lands sites in northern Nevada.

Many of these BCA issues overlap in interests protecting water quality and are linked to regulatory / permitting requirements and remediations by responsible parties which lie well outside of NPS program's purview. However, there are issues in the State of Nevada that are not entirely addressed by BCA program where the NPS program can assist in addressing NPS issues. One such area lies in abandoned mines where no responsible party exists yet there is a need to coordinate and implement remediation measures to reduce nonpoint source loads. For instance, abandoned mines are located on properties acquired since mining operations ceased. The new landowners are not responsible

parties, yet are committed to measures needed to prevent pollution of the waters of the State. Such situations exist and the use of 319(h) resources may be effective in helping address some of the corrective action issues. Examples of possible sites include Big Springs, Castle Peak, Corey (Big Indian) Mine, Jarbidge Mine and Mill, Nelson and Crum Canyon Adits, Patsy Ann Mine, Ramsey-Comstock, Rocky Gulch, Ted Saylor Mill, and Union Mine.

Coordinated work in the next 5 years will likely entail the identification of sites based on AML database entries and future investigations, evaluation of the scope and scale of the issue(s) to be addressed, and evaluation of the appropriateness of alternative watershed-based plans and implementation of remedial actions (e.g. either through GFO solicitation or direct funding actions).

Local/Regional Entities: Existing partnerships with local entities will continue by seeking proposals for ongoing restoration and protection work within context of approved WBPs (or accepted frameworks). Examples of the local entities where partnerships are ongoing include TRPA, CWSD, Washoe County, Clark County, and Douglas County. Examples of non-profit organizations funded by the NPS program also include The Nature Conservancy, One Truckee River, and River Wranglers. The emphasis in the next five (5) years for partnerships with each of these entities is to reduce NPS pollution in tangible ways such that load reductions to the Lake Tahoe, Carson River, Truckee River, Walker River, and Virgin River can be documented.

Additional partnerships will be sought or renewed in other watersheds throughout the state. Key partnerships with local entities (e.g. Counties, School Districts etc..) will likely be catalyzed by activities through the State's Conservation Districts and their staff. The State's CDP provides administrative support to the SCC and assists the State's 28 local conservation districts in the development and implementation of programs to conserve Nevada's natural resources. The emphasis of conservation district programs is on voluntary compliance and individual technical assistance. Some districts have taken an active role in riparian area management. Additional local or regional partnerships may also be catalyzed by relevant associations, foundations, and societies (e.g. Society of Land Management) as well as private interested parties.

6.3 MEASURES FOR TRACKING SUCCESS

6.3.1 PARTNERSHIPS

The measures for tracking success in the development or maintenance of partnerships can be challenging because coordination and conversations often produce intangible outcomes. However, this Plan provides a preliminary list of some tangible outcomes that can come from conversations and coordination efforts. Specifically, a good outcome of partnerships with federal agencies is joint plans resulting in on-the-ground projects - for instance the designation of a new NWQI (with associated projects). A measure for partnering with the state SRF program would be the determination of either providing NPS incentives or pathways to provide State matching funds for the

state's 319 federal awards (the determination should be complete in Years 1 and/or 2). Another measure could be the amount of matching funds provided or leveraged by partnering agencies.

Measure of success in Tribal coordination and partnerships could take the shape of shared stewardship projects that utilize local tribal knowledge as the basis of the BMPs employed for water protections or projects that are implemented on tribal lands or lands/waterways immediately adjacent.

6.3.2 PRIORITIZATION AND PLANNING:

Success in prioritization and planning will be measured by the development, maintenance, and use of targeted prioritization lists for both protection and restoration activities, as well as by the number and quality of WBPs (WBPs) and alternative plans that are developed, updated, and accepted.

For protection, success will be measured by updates made to existing plans that now incorporate protection goals under the new 319 guidelines, as well as by the identification of high-quality Category 1 waters with protection opportunities. Prioritization for protection will be informed by vulnerability assessments that consider emerging threats (e.g., wildfire, HABs), RPS outputs, and cross-agency data. Planning milestones will include the number of stakeholder outreach efforts in protection-priority watersheds, the number of new protection-focused plans initiated or integrated into existing WBPs, and the number of accepted protection-inclusive plans.

For restoration, success will be tracked by the regular updating of prioritization lists using tools such as the Integrated Report, the EPA RPSRT, PLET, and Model My Watershed. These lists will identify Category 5 waters with high potential for water quality improvement. Metrics will include the number of stakeholder solicitations in impaired watersheds, the number of newly developed or updated WBPs or alternative plans in restoration-priority areas, and the number of plans formally accepted by EPA. NPS Program anticipates at least one new restoration-focused watershed plan to be developed and accepted per year, in line with EPA guidance.

In both protection and restoration efforts, stakeholder engagement will be tracked by the number of planning facilitators identified and supported, and by the documented capacity and interest of local partners to carry out planning and implementation. All prioritization and planning activities will be reviewed annually and revised as necessary to ensure they reflect evolving threats, opportunities, and program goals.

6.3.3 PROJECTS

The measures of success for implementation projects will include the annual compilation of the miles of riverbanks restored/protected; load reductions realized, and the percentage of total load reductions needed to meet water quality standards. Assessments of potential water quality

improvements associated with implementation projects also will be evaluated to develop water quality improvement success stories. Another indicator of success for implementation projects may be the evaluation of essential ecological attributes (EEAs), such as landscape condition, biotic condition, chemical/physical characteristics, ecological processes, hydrology/geomorphology, and natural disturbance regimes, that describe the state of an ecological system and provide quantifiable stages of success.

Delisting of impaired waters is a measure of all water quality improvement efforts and the net reduction of 303(d) listings is a measure of protective as well as restorative activities. During the next 5 years all delisting will be evaluated to determine if they are related to reductions in NPS pollutants facilitated by the state program. When appropriate, these will be reported as Success Stories.

Besides these numeric\compiled measures, NDEP will also report on successes in reaching communities across the state. Allocation of resources across counties and watersheds will also be tracked and reported- since an aim of the program is to help diversify its portfolio such that it can help address NPS issues for all Nevadans.

TABLE 6.2: METRICS FOR NPS PROGRAM

Focus Area	Metric	Target or Frequency	Notes / Data Source
Partnerships	Number of joint plans with federal agencies (e.g., NWQI designation)	≥1 plan every 2 years	Outcome of federal agency coordination
	SRF determination on NPS incentives or match funds	Complete by Year 2	Policy or program decision point
	Amount of match funds leveraged via SRF if applicable	Tracked annually if SRF is a match source	Funding documentation
	Number of shared stewardship/ plans/projects with Tribes	≥1 per planning cycle	Involves tribal BMPs or projects on/near tribal lands
Prioritization & Planning	Number of updated prioritization lists (restoration/protection)	Annual updates	Tools: Integrated Report, RPS, Model My Watershed, PLET
	Number of accepted WBPs or alternative plans	≥1 new plan/year	EPA acceptance as benchmark
	Number of protection-inclusive plans updated or initiated	Track annually	Includes emerging threats and high-quality waters
	Number of stakeholder engagement efforts (outreach, facilitators, etc.)	Tracked annually	Include capacity-building indicators
	Inclusion of protection goals in WBPs	Documented during plan reviews	Included and new under new 319 guidance
Projects	Miles of riverbank restored or protected annually	Track annually	Implementation project reports
	Load reductions (e.g., nitrogen, phosphorus, sediment)	Annual summary	Compare to WQ standards or TMDLs
	% of Total Load Reduction needed met	Track cumulatively per waterbody	Use monitoring and modeling data
	Number of impaired waters delisted due to NPS efforts	Evaluated and reported annually/ each new IR	EPA Integrated Report (IR)
	Evaluation of EEAs (e.g., biotic condition, hydrology)	Project-specific evaluations	Supports success story development
	Distribution of funding/projects by county/watershed	Annual geographic summary	Ensures equitable statewide resource allocation
	Number of success stories submitted to EPA	≥1 per year	Based on delisting or significant NPS load reductions

APPENDIX A. ACRONYMS

Acronym	Meaning
AML	Appropriate Management Level (for wild horse and burro populations)
BMP	Best Management Practice
BLM	Bureau of Land Management
BWQP	Bureau of Water Quality Planning
CFR	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
GRTS	Grants Reporting and Tracking System
HMA	Herd Management Area
ICR	Indirect Cost Rate
NDA	Nevada Department of Agriculture
NCA	Nevada Cattlemen's Association
NDEP	Nevada Division of Environmental Protection
NDOW	Nevada Department of Wildlife
NGO	Non-Governmental Organization
NPS	Nonpoint Source
QAPP	Quality Assurance Project Plan
RPS	Recovery Potential Screening (EPA tool)
SAM	Surface Water Ambient Monitoring (NDEP branch)
SAPR	Semi-Annual Progress Report
SMP	State Management Plan
SRF	State Revolving Fund
TMDL	Total Maximum Daily Load
TRPA	Tahoe Regional Planning Agency
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WBP	Watershed-Based Plan
AML Program	Abandoned Mine Lands Program
CFDA	Catalog of Federal Domestic Assistance
CWSD	Carson Water Subconservancy District
Conserve NV	Conserve Nevada (state bond-funded conservation program)
DVCD	Dayton Valley Conservation District
EPA Region 9	U.S. Environmental Protection Agency, Region 9
GID	General Improvement District
KGID	Kingsbury General Improvement District
LTInfo	Lake Tahoe Information System
NPS Branch	Nonpoint Source Branch (NDEP)
NTCD	Nevada Tahoe Conservation District
NWQI	National Water Quality Initiative
SAPR	Semi-Annual Progress Report
TSAC	Tahoe Science Advisory Committee
USAP	United States Antarctic Program

APPENDIX B. KEY DEFINITIONS

Nonpoint Source (NPS) Pollution

Pollution originating from diffuse sources across the landscape rather than from a single, identifiable point. Common sources include runoff from agricultural lands, rangelands, forests, urban areas, and construction sites.

Category 1–5 Waters

As used in Nevada's Integrated Report pursuant to Clean Water Act Sections 303(d) and 305(b):
- Category 1: Waters fully supporting all designated uses.
- Category 2: Waters supporting some uses, but insufficient information to determine others.
- Category 3: Waters with insufficient data to determine if uses are supported.
- Category 4: Impaired waters not requiring a TMDL, subdivided into:
  - 4a: TMDL already completed.
  - 4b: Other pollution controls expected to resolve impairment.
  - 4c: Impairment not caused by a pollutant.
- Category 5: Waters impaired by one or more pollutants and requiring a TMDL.

Best Management Practice (BMP)

A practice or set of practices, structural or non-structural, used to reduce or prevent nonpoint source pollution and protect water quality.

Watershed-Based Plan (WBP)

A comprehensive plan that addresses all nine EPA-required elements for watershed restoration and protection, including pollutant sources, load reductions, management measures, funding, and monitoring.

Appropriate Management Level (AML)

The number of wild horses and burros that can be sustained within a Herd Management Area (HMA) consistent with land health standards, as determined by federal land management agencies.

Adaptive Management

A structured, iterative process of robust decision-making in the face of uncertainty, with an aim to reduce uncertainty over time via system monitoring and feedback.

CWA Section 208 A section of the Clean Water Act that requires states and designated local or regional agencies to develop and implement *areawide water quality management plans*. These plans identify point and nonpoint sources of pollution, establish management measures, and coordinate water quality protection efforts among jurisdictions within a defined planning area.

CWA Section 319 Authorizes federal funding and guidance for state-led programs to *control nonpoint source (NPS) pollution*. Section 319 programs support the development and implementation of watershed-based plans, education, technical assistance, and restoration projects that reduce pollutant loads from diffuse sources such as runoff from agricultural, urban, and other land uses.

APPENDIX C. ADDITIONAL RESOURCES

- Nevada's GIS Integrated Report Mapping Tool

Watershed-Based Planning Resources

  - Watershed-Based Planning Handbook

  - Critical Source Area Identification and BMP Selection: Supplement to Watershed planning Handbook

- Recovery Potential Screening (RPS) Tool
- Pollutant Load Estimation tool (PLET)
- How's My Waterway?
- NDEP Water Quality Data Warehouse Viewer
- USGS Hydrologic Unit Code (HUC) Watershed Tool
- EPA WATERS Geoviewer

BMP Manual References

- Nevada Division of Environmental Protection Online Toolbox
- Nevada Department of Transportation
- Las Vegas Valley Construction Site Best Management Practices Guidance Manual
- Tahoe Regional Planning Agency BMP Handbook
- Natural Resource and Conservation Service (NRCS) Conservation Practice Standards

APPENDIX D: ANNUAL TIMELINE OF KEY NPS PROGRAM ACTIVITIES AND ASSOCIATED OUTPUTS

Timing	Key Activity / Deliverable	Associated Output/Metric (Sxn 6.3)
Winter	Post Tahoe TMDL Annual Findings and Recommendations and Strategy and Decisions Record Memo	Annual TMDL reporting completed; public documentation of load reduction strategy and adaptive management decisions
	Submit Semi-Annual Progress Report (SAPR)	SAPR submitted to EPA; documentation of progress toward workplan milestones and expenditures
	Review and approve Tahoe TMDL Jurisdictional Declarations	Number of Declarations reviewed/approved; documented jurisdictional compliance with TMDL requirements
	Issue subawards and contracts (following prior year GFO selections)	Number and dollar amount of subawards issued; funds obligated to priority projects
Spring	Compile and submit Annual GRTS reporting elements	GRTS updated with load reductions, BMP implementation, and project status; annual reporting completed
	Develop and finalize Annual Workplan (GRTS-based)	Approved annual workplan and budget entered into GRTS; alignment with SMP priorities
	Integrate latest 303(d)/Integrated Report insights into planning and prioritization	Updated priority watershed/project list; incorporation of impaired waters into planning framework
Spring/Summer	Continue implementation of funded projects	Number of projects actively implemented; BMPs installed; acres/stream miles treated (as applicable)
Summer	Review Lake Tahoe Annual Clarity Report	Incorporation of clarity trends into adaptive management and Tahoe project prioritization
	Review Lake Tahoe State of the Lake Report	Integration of science findings into program planning and outreach

	Submit Semi-Annual Progress Report (SAPR)	SAPR submitted; mid-year progress documented and compared to planned outputs
	Launch Grant Funding Opportunity (GFO)	GFO released; number of proposals solicited; outreach conducted
	Develop at least one NPS Success Story; participate in Lake Tahoe Summit	Number of success stories developed; program visibility and outreach metrics
Summer/Fall Late September (End of FFY)	Submit Annual NPS Program Report and Federal Financial Report (FFR)	Annual report and FFR submitted; documentation of program accomplishments and financial status
Fall/Winter	Review and rank GFO proposals	Number of proposals reviewed and ranked; project selection recommendations developed
	Coordinate with EPA Region 9 on project selection	Final project list approved; alignment with EPA priorities documented
Year-Round (Ongoing)	Review and approve Tahoe TMDL Registrations	Number of Registrations reviewed/approved; tracking of regulated/participating entities
	Track project implementation (including site visits), expenditures, and GRTS updates	Number of site visits conducted; project tracking updates completed; expenditures and match documented