

# Program Overview

## 2020 Integrated Source Water and 319(h) Watershed Protection Plan for Public Water Systems and the Truckee River in the Truckee Meadows

### Introduction

The *2020 Integrated Source Water and 319(h) Watershed Protection Plan for Public Water Systems and the Truckee River in the Truckee Meadows* (Plan) is a tool developed by the community to help preserve and improve the quality of groundwater, lakes, rivers, springs, and streams that supply drinking water to the general public. This voluntary multi-jurisdictional planning effort is organized on a watershed basis for the Truckee River through the Truckee Meadows because the river and local aquifers comprise the drinking water sources for most of the population of Washoe County. Watershed management for non-point source pollution goes hand in hand with protecting source water quality.

### Key Outcomes of this Planning Effort

The Plan is intended to be a guide and resource for organizations working within a watershed and an educational tool for those interested in learning more about protecting the source water quality where they live. Key outcomes of the planning effort include map-based online access to the Plan, increased funding opportunities, and integration with existing regional water planning guidance.

### Source Water and Watershed Protection Web Map

This voluntary multi-agency planning effort has produced an online mapping tool available to agencies, organizations, and the general public. The [Source Water and Watershed Protection Web Map](#) is a visualization tool to aid water quality protection and enhancement in the greater Reno-Sparks area of Washoe County.

### Increased Grant Funding Opportunities

Stakeholders can use this tool to support individual or cooperative funding requests for a multitude of water quality improvement projects. The Plan was built to satisfy the criteria for endorsement by the Nevada Division of Environmental Protection (NDEP) as a [Community Source Water Protection Plan](#) through the Source Water Protection Program and for the approval of the U.S. Environmental Protection Agency (EPA), Region 9, as a [319\(h\) Watershed Management Plan](#).

Completion of the Plan increases the grant funding opportunities for local government, utilities, and nonprofit organizations to help protect water quality. Specifically, grant funding is available from two state programs: The [Integrated Source Water Protection Program](#) and the [319 \(h\) Nonpoint Source program](#) in the Bureau of Safe Drinking Water and the Bureau of Water Quality Planning under NDEP.

### Integration with Existing Regional Water Planning Entities

The Plan recognizes and supports the regional entities that are responsible for components of source water and watershed protection within their jurisdiction.

- [Washoe County Health District](#) – Responsible for compliance of all public water systems in Washoe County with State of Nevada and federal safe drinking water regulations
- [Truckee Meadows Water Authority](#) – Regional water purveyor in the Truckee Meadows
- [Truckee Meadows Stormwater Permit Coordinating Committee](#) – Oversees compliance with municipal stormwater regulations and watershed management for tributaries to the Truckee River in the Truckee Meadows

- [Western Regional Water Commission](#) – Provides comprehensive water planning for water supply and water quality throughout Washoe County
- [Truckee Meadows Regional Planning Agency](#) – Oversees the consistency of land use planning in the Truckee Meadow Region

This Plan and the *2020 Watershed Management and Protection Plan for Tributaries to the Truckee River* (NCE, 2020) are mutually complementary plans and work together to address the broad scope of potential strategies for groundwater and surface water quality in Washoe County.

## Plan Organization

For easy access to the county-wide Plan information, the map-based online format is hosted on the Truckee Meadows Regional Planning Agency server ([Source Water and Watershed Protection Web Map](#)). It is organized as follows:

- Maps of the planning area characterize the land use, jurisdiction, and water sources in each watershed.
- Descriptions by watershed of activities potentially contributing to non-point source pollution and management strategies to protect surface water and groundwater quality.
- Outlines of source water protection areas which represent precautionary indicators to safeguard drinking water sources, including more critical areas closer to perennial streams and public water system wells.
- Links to descriptions of voluntary projects to implement for watershed and source water protection.

## Plan Development

### Plan Initiation

In 2017, the Northern Nevada Water Planning Commission, the Western Regional Water Commission, the Truckee Meadows Water Authority, the Truckee Meadows Regional Planning Agency, the City of Sparks, and Washoe County Health District requested to participate in a regional planning effort to protect water quality and sources of drinking water. This included the Integrated Source Water Protection Program with concurrent updates and development of a management plan for the Truckee River that would meet [EPA plan requirements](#) for the 319(h) Nonpoint Source Program. In tandem, the Truckee Meadows Stormwater Permit Coordinating Committee was able, through Western Regional Planning Commission funding, to start updating their 2003 management plan for key tributaries to the Truckee River.

### The Plan Development Team

Several teams were assembled for developing the Plan elements. The teams were composed of representatives from local and state government agency planners, scientists, and educators. The primary planning team members represented the following entities:

- [Central Truckee Meadows Remediation District](#)
- [City of Reno Community Development, Environmental Control](#)
- [City of Sparks Planning & Zoning, Environmental Control](#)
- [NDEP Bureau of Water Quality Planning, Bureau of Safe Drinking Water](#), with [Resource Concepts, Inc.](#), contractor
- [Northern Nevada Water Planning Commission](#) and [Western Regional Water Commission](#)
- [Truckee Meadows Regional Planning Agency](#)
- [Truckee Meadows Stormwater Permit Coordinating Committee](#)
- [Truckee Meadows Water Authority](#)
- [Washoe County Community Services Dept. Planning & Development](#)
- [Washoe County Health District](#)

## Purpose and Goals

The purpose of the planning effort was to create a tool to help agency staff and decision makers to protect the water quality of drinking water sources and to help manage the Truckee River watershed to maintain and/or improve water quality. The team developed the following goals to guide the Plan development:

1. Identify water quality problems and solutions
2. List prioritized and implementable projects to improve or protect water quality
3. Provide a process for implementation, with roles and responsibilities
4. Be coordinated, consistent with and complementary to other plans
5. Be useful to funding and regulatory agencies
6. Provide a process to show benefits and accomplishments
7. Receive regional support and approval

## Plan Area Selection

### Source Water

The planning area includes the watersheds and groundwater basins containing existing and potential future sources of public drinking water throughout Washoe County. These drinking water sources are operated by 75 different public water systems, including the Truckee Meadows Water Authority, as well as numerous mobile home parks, convenience stores, restaurants, and schools outside of [the Truckee Meadows Water Authority service area](#). Drinking water sources include:

- Groundwater tapped by over 170 public water system wells,
- Surface water from the Truckee River watershed upstream of drinking water treatment facilities, and
- Surface water from other tributaries and springs where used for existing or potential future drinking water supply.

### Source Water Protection Areas

Sources of drinking water, including key recharge areas, were defined using multiple modeling techniques and were used to map [Source Water Protection Areas](#) (SWPAs). SWPAs represent areas where the community has established precautionary boundaries to safeguard drinking water sources. These boundaries encompass aquifers and surface waters both broadly and more critically vulnerable to contamination from human activity in the region. The SWPAs are delineated for voluntary planning purposes and do not represent regulatory boundaries. Within SWPA boundaries, education, monitoring, and land use planning can provide more comprehensive management of surface water and groundwater resources.

### Watersheds by Hydrologic Code

Watersheds in the planning area are described by the U.S. Geological Survey Hydrologic Unit Code 12, or "HUC-12", level. This system, which describes watershed extent, fulfills several goals. The watershed approach satisfies the EPA requirements for a watershed plan and watersheds are important for recharge to groundwater sources of drinking water. Also, HUC-12 watershed levels are used by project stakeholders such as the U.S. Forest Service, the Natural Resource Conservation Service, and the Nevada Division of Forestry, and are thus a common language to share information. By HUC-12, the planning area includes the Truckee River watershed through the Truckee Meadows within Washoe County.

## Implementation Measures and Project Profiles

Water quality protection and improvement strategies are accessible under “More Info” through the following layers of the [Source Water and Watershed Protection Web Map](#), see:

- “Watersheds Tributary to the Truckee River in the Truckee Meadows” to view Watershed Profiles by HUC-12 watershed designation
- “Groundwater Basins” to view Watershed and Source Water Profiles by groundwater basin

A summary of voluntary implementation measures that were prioritized by the local stakeholders are also accessible through the web map link under “Project Profiles”. These detailed project descriptions include information needed to satisfy the EPA 9 Critical Elements of a watershed-based plan and/or a Nevada community source water protection plan.

## References

- City of Reno, Environmental Control, Website, Available at: [Environmental Control](#)
- City of Reno, Truckee Meadows Storm Water Permit Coordinating Committee, Website, Available at: [Truckee Meadows Stormwater Quality Management Program](#)
- City of Sparks, Environmental Control, Website, Available at: [City of Sparks](#)
- Environmental Protection Agency. 2012 Recreational Water Quality Criteria. Accessed online 08/24/2020. Available at: [EPA 2012 Recreational Water Quality Criteria](#)
- Environmental Protection Agency. Polluted Runoff: Nonpoint Source (NPS) Pollution. Accessed online 08/24/2020. Available at: [319 Grant Program for States and Territories](#)
- NCE, Nichols Consulting Engineers. 2020 Watershed Management and Protection Plan for Tributaries to the Truckee River. Prepared for the Truckee Meadows Stormwater Permit Coordinating Committee.
- NDEP, Bureau of Safe Drinking Water, Nevada Division of Environmental Protection, Website, Available at: [NDEP](#)
- NDEP, Bureau of Water Quality Planning, Nevada Division of Environmental Protection, 2016-2018. [Nevada 2016-2018 Water Quality Integrated Report](#)
- NDEP, Integrated Source Water Protection Program, Website, Available at: [Integrated Source Water Protection](#)
- Northern Nevada Water Planning Commission, Website, Available at: [NNWPC](#)
- Resource Concepts, Inc. (RCI), 2020 Integrated Source Water and 319(h) Watershed Protection Plan for Public Water Systems and the Truckee Meadows in the Truckee Meadows, 2020. [http://www.rci-nv.com/source\\_water\\_protection/](http://www.rci-nv.com/source_water_protection/)
- Truckee Meadows Regional Planning Agency, Website, Available at: [TMRPA](#)
- Truckee Meadows Water Authority, DRAFT 2020-2040 Water Resources Plan, Chapter 6, Recommendation 2.6, 2020. Available at: [WRP 2020](#)
- Truckee Meadows Water Authority, Service Areas, Online Image, Available at: [TMWA Service Areas](#)
- Truckee Meadows Water Authority, Website, Available at: [TMWA](#)
- Truckee River Info Gateway. Truckee Meadows Regional Storm Water Permit Coordinating Committee. Accessed online 08/24/2020. Available at: [Truckee River Info](#)
- Washoe County, Central Truckee Meadows Remediation District, Website, Available at: [CTMRD](#)
- Washoe County, Community Services, Website, Available at: [Community Services](#)
- Washoe County, Health District, Website, Available at: [Health District](#)
- Western Regional Water Commission, Website, Available at: [WRWC](#)