

## Section 2

### TRWQMP Summary

The purpose of the TRWQMP is to provide a strategy for assessing the effectiveness of the County and Town SWMPs in protecting downstream water resources. It provides guidelines for conducting multiple types of monitoring activities to evaluate the various SWMP actions being implemented to protect natural receiving waters from the impacts of stormwater runoff. This section provides a summary of the TRWQMP's purpose and presents the goals and objectives that were defined to help guide its implementation.

#### 2.1 Purpose

The SWMP outlines two categories of assessment for evaluating the effectiveness of stormwater management programs. The first, compliance assessment, focuses on inspections of activities that may contribute to poor quality of stormwater runoff with the goal of enforcing compliance with the guidelines delineated in the SWMP. Compliance monitoring is conducted by the County's and Town's staff as outlined in their respective SWMPs and is not addressed by the TRWQMP. The second, performance assessment, is the focus of the TRWQMP. Performance assessment involves directly evaluating the water quality of stormwater and receiving waters in order to gauge the success of the SWMP in protecting surface water resources. Results from the TRWQMP can inform strategies for stormwater management outlined in the SWMP by identifying sub-watersheds of concern and prioritizing pollutant sources that disproportionately affect water quality.

The overall purpose of the TRWQMP is to assess the effectiveness of various SWMP related actions taken to protect natural surface waters from the impacts of stormwater runoff. The TRWQMP also aims to promote collaboration among the various independent groups performing monitoring in the Truckee River Watershed. The creation of a more unified data management and reporting structure will help to identify and track pollutant sources and evaluate long-term water quality trends.

#### 2.2 Goals and Objectives

The following set of goals and objectives were defined during the development of the TRWQMP to help describe its purpose and the guidelines under which it was developed.

**TRWQMP Goal 1:** Ensure regulatory compliance for Placer County and the Town of Truckee with the NPDES permits, Lahontan Board Orders, Middle Truckee River Sediment TMDL, Squaw Creek sediment TMDL, and the Martis Valley Community Plan.

**TRWQMP Goal 2:** Develop water quality monitoring datasets that will be scientifically defensible and provide accurate data to evaluate the effectiveness of Stormwater Management Programs in protecting surface water resources.

**TRWQMP Goal 3:** Develop a monitoring plan that is economically feasible to implement and maintain over time.

**TRWQMP Goal 4:** Ensure that the TRWQMP allows collaboration, effort-sharing and integration of multiple independent private and public monitoring efforts.

To meet the goals of the TRWQMP, a more focused set of objectives were developed as follows:

- Provide a comprehensive and integrated data collection, data analysis and reporting framework to evaluate and track the status of surface water resources within the project area spatially and over time.
- Prioritize monitoring resources on spatial locations determined to be existing and/or future potential source areas.
- Focus monitoring resources on pollutants of concern and indicators that are clearly rationalized for each location of monitoring. Prioritize pollutants based on greatest risk to surface water resources due to specific land use activities.
- Maximize monitoring resources by including a range of monitoring types that vary in frequency of collection, relative cost to complete and statistical accuracy.
- Focus monitoring resources on times (season, storm events, etc.) when potential source area water quality is expected to deviate greatest from observations at minimally impacted locations.

The TRWQMP prescribes multiple types of monitoring activities to be implemented in a phased approach. Also, data collection and analysis activities are intended to be flexible from year to year to allow adjustments based on available funding and new information that is developed through the program's implementation. To improve the value of data collected by the various monitoring activities, more specific objectives have been developed to focus implementation on answering specific water quality related questions. The following additional objectives were developed for the current Phase 1 monitoring:

#### *Rapid Assessments*

- Describe the current distribution of fine sediment in the Truckee River, Bear Creek, Squaw Creek, Donner Creek, Trout Creek, and Martis Creek within the monitored intervals.
- Identify potential correlations between sediment impacted stream segments and potential upstream sources or other stream or geological characteristics.

#### *Bioassessments*

- Describe the current stream health of Squaw and Martis Creeks as indicated by their benthic macroinvertebrate communities.
- Identify potential correlations between stream health and watershed characteristics/land uses.

#### *Community Discrete Samples*

- Characterize the water quality of stormwater runoff from various areas within the study area.
- Conduct source area analysis based on pollutants present in the runoff.

#### *Tributary Discrete Samples*

- Characterize the water quality differences among the various Martis Creek tributaries.
- Conduct source area analysis based on pollutants present in the tributaries.

### *Stream Discharge Monitoring*

- Characterize annual discharge patterns and volumes for Martis Creek and develop annual pollutant load estimates for each monitored branch of Martis Creek and to Martis Creek Lake.

The data from all five of these assessment types will also provide base line water quality information to be used for the comparison of future data and evaluation of water quality trends over time.

Additionally, the data from sites exhibiting good water quality can provide realistic water quality targets when planning stormwater improvements for problem areas.