
EXECUTIVE SUMMARY

The Rio Hondo Basin, located in northern New Mexico, is a sub-basin of the Upper Rio Grande. The river's headwaters lie in the Sangre de Cristo Mountains above Taos Ski Valley. The confluence of the North and Lake Forks forms the Rio Hondo within the ski valley. The upper Rio Hondo watershed encompasses 20.9 square miles and is primarily forest land, with 90% of the watershed undeveloped. The Rio Hondo provides essential habitat for a variety of terrestrial and aquatic organisms. Designated uses include domestic water supply, fish culture, high quality coldwater fishery, irrigation, livestock watering, wildlife habitat, and secondary contact. The region also has numerous trails frequented by hikers and bicyclists as well as a world-class ski resort situated near its headwaters.

Water Quality Impairments

The New Mexico Administrative Code (NMAC) defines the Rio Hondo in standards segment 20.6.4.123 of the Rio Grande Basin. Segment 20.6.4.123 includes all perennial reaches of tributaries to the Rio Grande in Taos County unless the specified reach was included in another segment. A waste load allocation for nutrients was previously completed for the Rio Hondo (New Mexico Environmental Improvement Division [NMEID], 1981). Recent stream surveys (2000-2004) have found that the Rio Hondo near the Village of Taos Ski Valley fully supports its designated uses defined by the state of New Mexico. Nevertheless, the Village of Taos Ski Valley (VTSV) wants to increase their capacity and effluent discharge into the river so the New Mexico Environment Department/Surface Water Quality Bureau implemented a special study in 2004. This document provides a revised nutrient Total Maximum Daily Load (TMDL) for the assessment unit within the Rio Hondo using the data from the special survey and defines a waste load allocation for the Village of Taos Ski Valley such that increased discharge from the waste water treatment plant will not cause violations of the water quality standards protecting the Rio Hondo.

Clean Water Act Section 303(d) List and TMDLs

Section 303(d) of the Federal Clean Water Act requires states to develop TMDL management plans for water bodies determined to be water quality limited. A TMDL documents the amount of a pollutant a water body can assimilate without violating a state's water quality standards. It also allocates that load capacity to known point sources and nonpoint sources at a given flow. TMDLs are defined in 40 Code of Federal Regulations Part 130 as the sum of the individual Waste Load Allocations for point sources and Load Allocations for nonpoint sources, including a margin of safety and natural background conditions.

Nutrient Sources

The only point source discharge of nutrients in the Rio Hondo is from the VTSV's Wastewater Treatment Plant. The primary nonpoint discharge of nutrients is from residential and urban areas, septic tank disposal systems, construction sites, recreational activities, ski slope runoff, and atmospheric deposition. Nutrients enter the stream by way of overland surface runoff during spring snowmelt and storm events, through groundwater that contains elevated levels of nutrients from septic tank wastewater, via atmospheric deposition (i.e. dust), and from background, or natural, sources.

TMDL Implementation

Revision of VTSV's National Pollution Discharge Elimination System (NPDES) permit will be part of the implementation of this TMDL. A general implementation plan for activities to be established related to nonpoint sources is included in this document. The Surface Water Quality Bureau's Watershed Protection Section (SWQB/WPS) will further develop the details of this plan. Implementations of recommendations in this document will be done with full participation of all interested and affected parties. During implementation, additional water quality data may be generated. As a result, targets will be re-examined and potentially revised. Thus, this document is considered to be an evolving management plan. In the event that new data indicate that the targets used in this analysis are inappropriate or if new standards are adopted, the load capacity will be adjusted accordingly.

It is important to remember that the TMDL is a planning tool to be used to achieve water quality standards. Since flows vary throughout the year in these systems the target load will vary based on the changing flow.

**TOTAL MAXIMUM DAILY LOAD FOR NUTRIENTS
RIO HONDO (SOUTH FORK OF RIO HONDO TO LAKE FORK CREEK)**



New Mexico Standards Segment	Rio Grande 20.6.4.123
Assessment Unit Identifier	Rio Hondo (South Fork of Rio Hondo to Lake Fork Creek) NM-2120.A_602 (formerly NM-URG1-Hondo)
Assessment Unit Length	3.88 miles
Parameters of Concern	Total Phosphorus, Total Nitrogen
Uses Affected*	High Quality Coldwater Fishery
Geographic Location	Rio Grande USGS Hydrologic Unit Code 13020101
Scope/size of Watershed	72 mi ²
Land Type	Southern Rocky Mountains (Subcoregion 21)
Land Use/Cover	Shrubland (7%), Forest (78%), Grassland (10%), Urban (3%), Barren/Tundra (2%)
Identified Sources*	Municipal Point Source, Construction, Urban Runoff, Onsite Wastewater Systems, Recreational Activities, Ski Slope Runoff
Land Management	U.S. Forest Service (61%), Private (38%), Tribal lands (1%)
Priority Ranking	High
TMDL for:	WLA + LA + GA + MOS = TMDL
Total Phosphorus	1.00 + 1.50 + 0.06 + 0.63 = 3.19 lbs/day
Total Nitrogen	11.0 + 18.6 + 0.63 + 1.60 = 31.9 lbs/day

* This assessment unit is **not** listed as an impaired reach in the *2004-2006 State of New Mexico Integrated Clean Water Act §303(d)/ §305(b) Report*. This TMDL document was written as a precautionary measure to help mitigate the expansion of the Village of Taos Ski Valley's Wastewater Treatment Plant and to prevent or reduce the probability of any future nutrient impairment.