5.B REDONDO CREEK

The Redondo Creek Watershed is a sub-basin of the Jemez River Basin, located in northcentral New Mexico. The Jemez River Basin, approximately 1043 mi^2, is dominated by both forest and rangeland (Figure 1.A) on mostly U.S. Forest Service, Tribal, and private land. Redondo Creek from Sulphur Creek to its headwaters is an 11.7 mi^2 watershed. Both the study watershed and the Jemez River Basin are located primarily on U.S. Forest Service Land.

Stations were located throughout the basin to evaluate the impact of tributary streams. As a result of this monitoring effort, several exceedances of New Mexico water quality standards for temperature and turbidity were documented on this segment of Redondo Creek. This creek is listed in the 2000-2002 §303(d) list of impaired waters for these constituents only, and TMDL calculations are in Sections 10 and 12 for turbidity and temperature, respectively.

Table 3 gives brief descriptions of the locations of the sampling stations and shows that Station 11 is on Redondo Creek. A subset of Table 3, for Redondo Creek, is shown below. This location can be seen on Figure 4. Redondo Creek above the confluence with Sulphur Creek (Station 11) showed one exceedance of the turbidity standard during the spring run. The total phosphorus standard was exceeded on that same day as well, and the two events are probably related. The sources for total phosphorus in Redondo Creek are natural and unknown. NMED has written a draft TMDL document addressing the total phosphorus constituent (October 1999) and it can be found on the www.nmenv.state.nm.us/swqb website. However, after this TMDL for Redondo Creek was written (January 2000), the use-specific numeric standard for total phosphorus for high quality coldwater fisheries was eliminated.

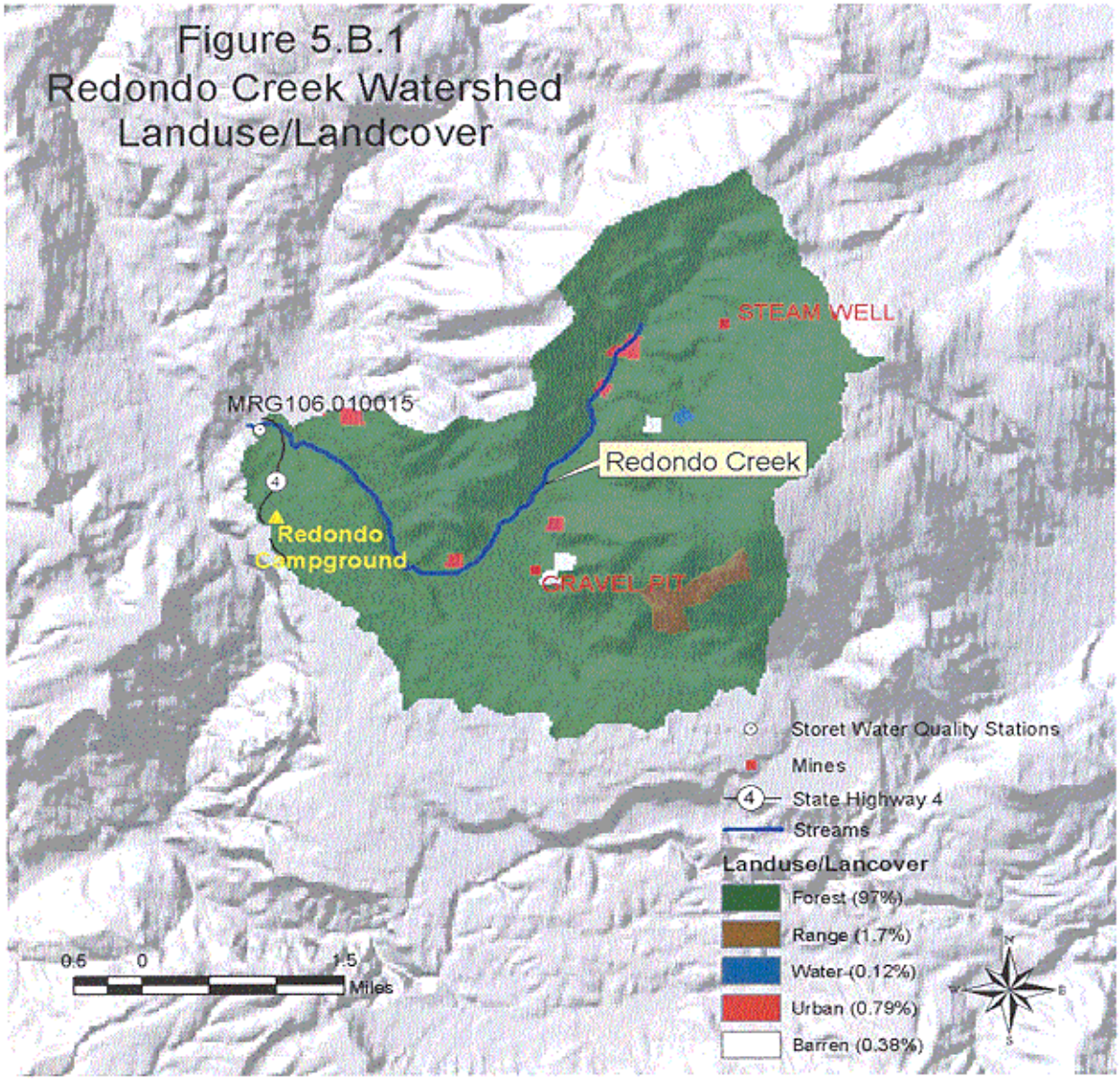
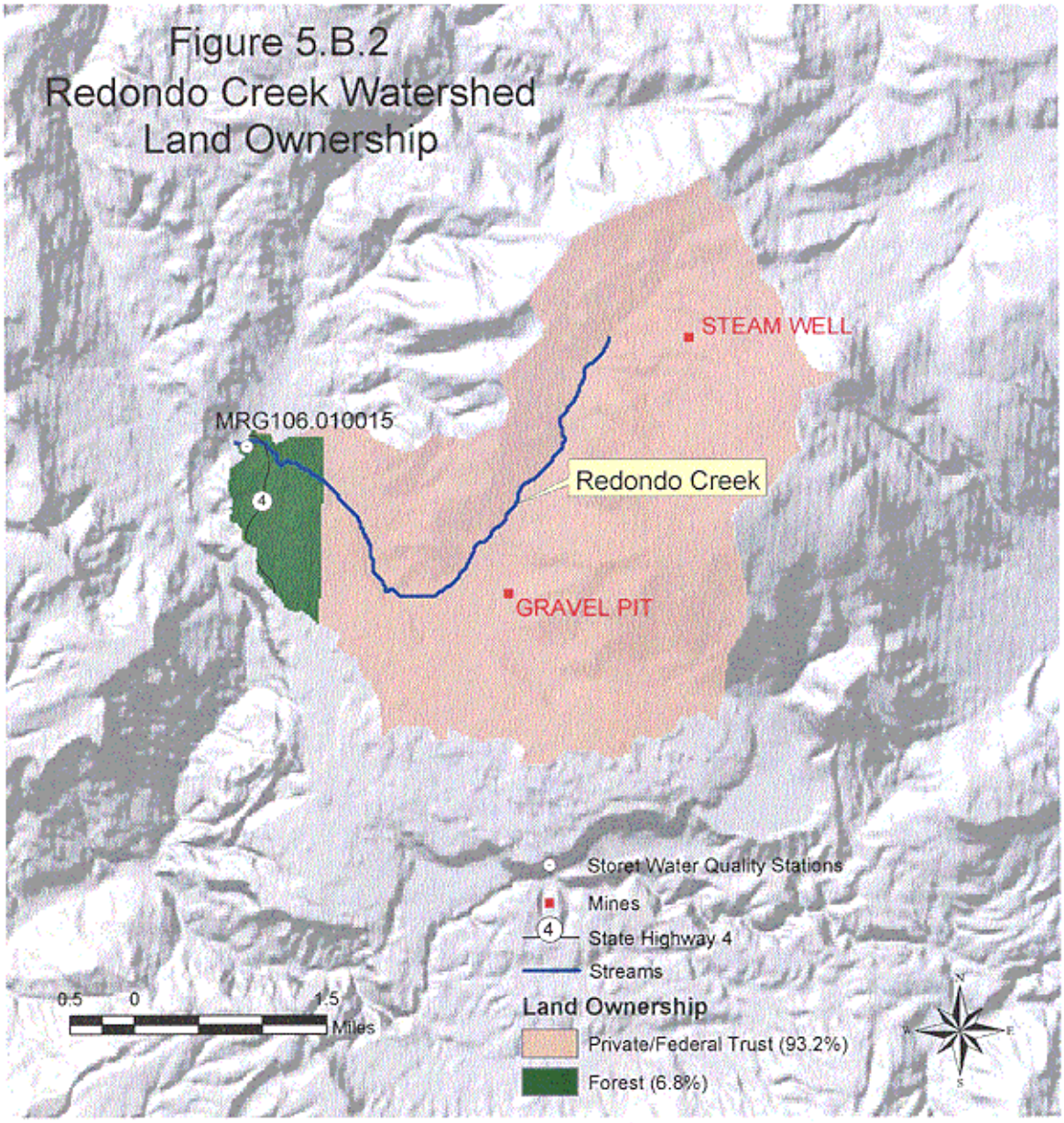
A thermograph was deployed at Station 11 on July 15 and retrieved September 28, 1998. Of the 1,796 temperature readings made during this period, 82 measurements exceeded the numeric standard of 20°C. It was noted by the sampling crew, except for temperature as noted above, general water quality in Redondo Creek was good. The water was cool to cold, carried low concentrations of most nutrients and dissolved constituents and was well to very well oxygenated (SWQB/NMED, 2001).

As previously stated, several exceedances of New Mexico water quality standards for temperature and one exceedance of turbidity and total phosphorous were documented on Redondo Creek (from its mouth at Sulphur Creek to the headwaters). NMED has written a TMDL document addressing the total phosphorous constituent for this reach (October 1999) and can be found on the www.nmenv.state.nm.us.swqb website. Currently, due to recent review processes, there is no longer a total phosphorus standard.

Table 5-2: Redondo Creek Station Identification

SWQB/NMED STATION ID	STORET CODE	SWQB/NMED Thermograph Location ID	Location
11	MRG106.010015	T10	Redondo Creek upstream from confluence with Sulphur Creek at State Highway 4.

STORET STATION I.D.	NMED/SWQB STATION I.D.	LOCATION
MRG106.010015	11	Redondo Creek upstream from confluence with Sulphur Creek at State Highway 4.



STORET STATION I.D.	NMED/SWQB STATION I.D.	LOCATION
MRG106.010015	11	Redondo Creek upstream from confluence with Sulphur Creek at State Highway 4.