5.1 RITO PEÑAS NEGRAS

The Rito Peñas Negras 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) on mostly U.S. Forest Service, Tribal, and private land. The Rito Peñas Negras from the mouth of the Rio de las Vacas to the headwaters is a 24 mi^2 watershed. Both the study basin and the Jemez River Basin are located primarily on U.S. Forest Service land.

Photo 13. Upper Rito Peñas Negras

Stations were located throughout the Jemez River Basin to evaluate the impact of tributary streams. As a result of this monitoring effort, several exceedances of New Mexico water quality standards for total organic carbon (TOC), stream bottom deposits and temperature were documented on this segment of the Rito Peñas Negras. The Rito Peñas Negras is listed in the 2000-2002 §303(d) list of impaired waters for these three constituents only, and TMDL calculations can be found in Sections 9, 11, and 12, respectively.

Table 3 gives brief descriptions of the locations of the sampling stations and shows that stations 20 and 21 are on the Rito Peñas Negras. A subset of Table 3, for Rito Peñas Negras, is shown below in Table 5-9. These locations can be seen on Figure 4. The Rito Peñas Negras, a perennial tributary of the Rio de las Vacas, was sampled during the Summer and Fall runs of 1998 and again in the early Spring of 1999. The Rito Peñas Negras at Pipeline Road (Station 21) was sampled only during the early Spring of 1999 for physical parameters and nutrients. The water was cold and clear, moderately alkaline and contained low levels of nutrients. A thermograph was deployed at this station and 80 readings, out of a total of 1,791, exceeded the numeric standard of 20°C. Another thermograph was also deployed on the upper reach of the Rito Peñas Negras during the same time, (Figure 4) and only 9 readings, out of a total of 1,847, exceeded the numeric standard of 20°C.

Station 20 was located upstream of State Highway 126. During the Summer sampling run, the water was cool, reasonably clear, well oxygenated and carried low to moderate concentrations of most nutrients and dissolved constituents. There were no exceedances of water quality standards during this run. The TOC criterion was exceeded on all three days of the Fall sampling effort, probably as a result of decomposing deciduous vegetation. The water was somewhat more turbid during the Fall run, producing one marginal exceedance of the turbidity standard. There were two exceedances of the turbidity criterion during the Spring 1999 run. The average TOC concentration for the three days during the Fall was 9.1 mg/L, which is an exceedance of the chronic criterion of 7 mg/L.

In addition to TOC, there were several exceedances for temperature.

Table 5-9: Rito Peñas Negras Station Identification

SWQB/NMED STATION ID	STORET CODE	SWQB/NMED Thermograph Location ID	Location
20	MRG106.008520	T3	Rito Peñas Negras at State Highway 126.
21	MRG106.008521	T2	Rito Peñas Negras at Pipeline Road.

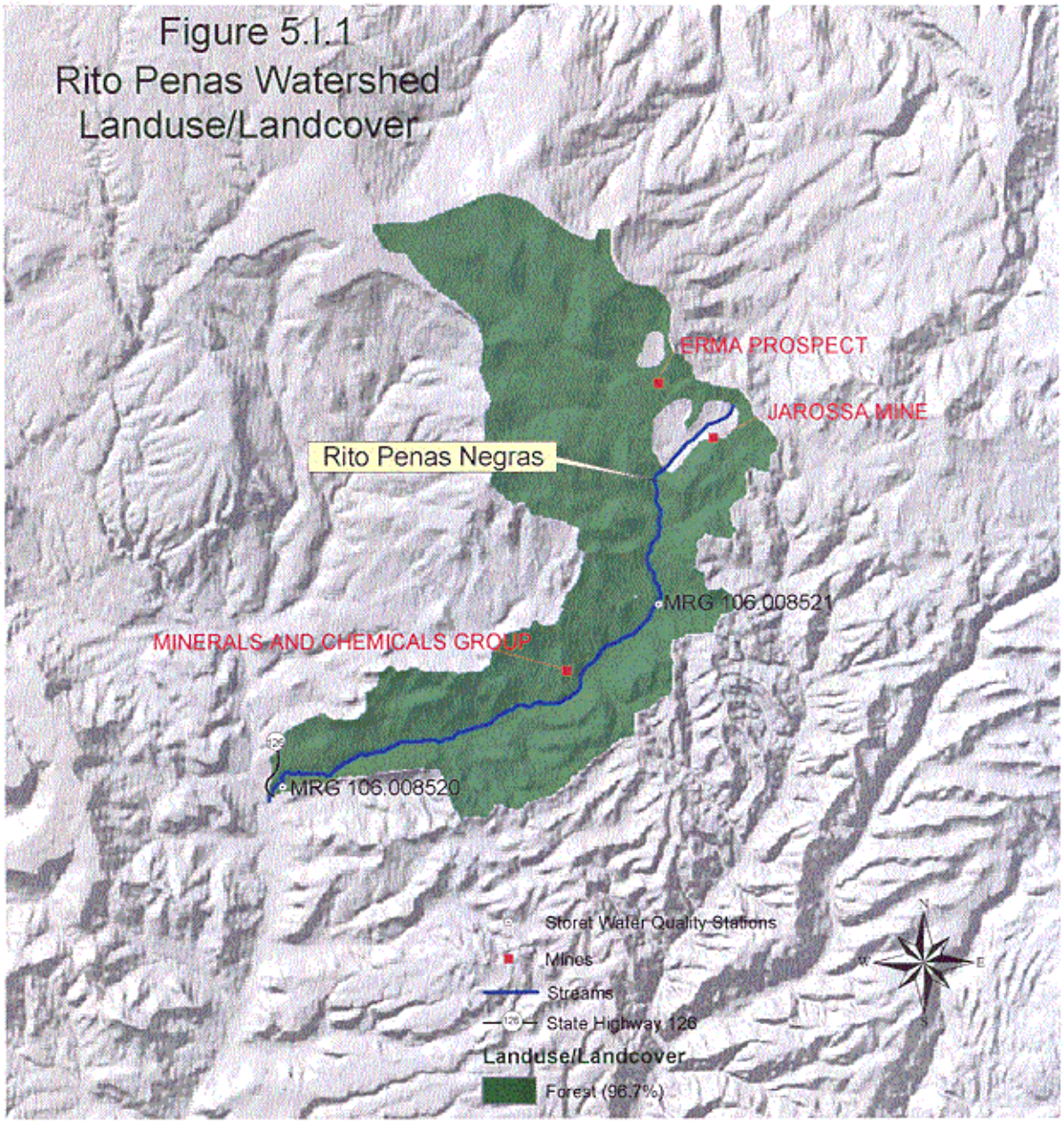
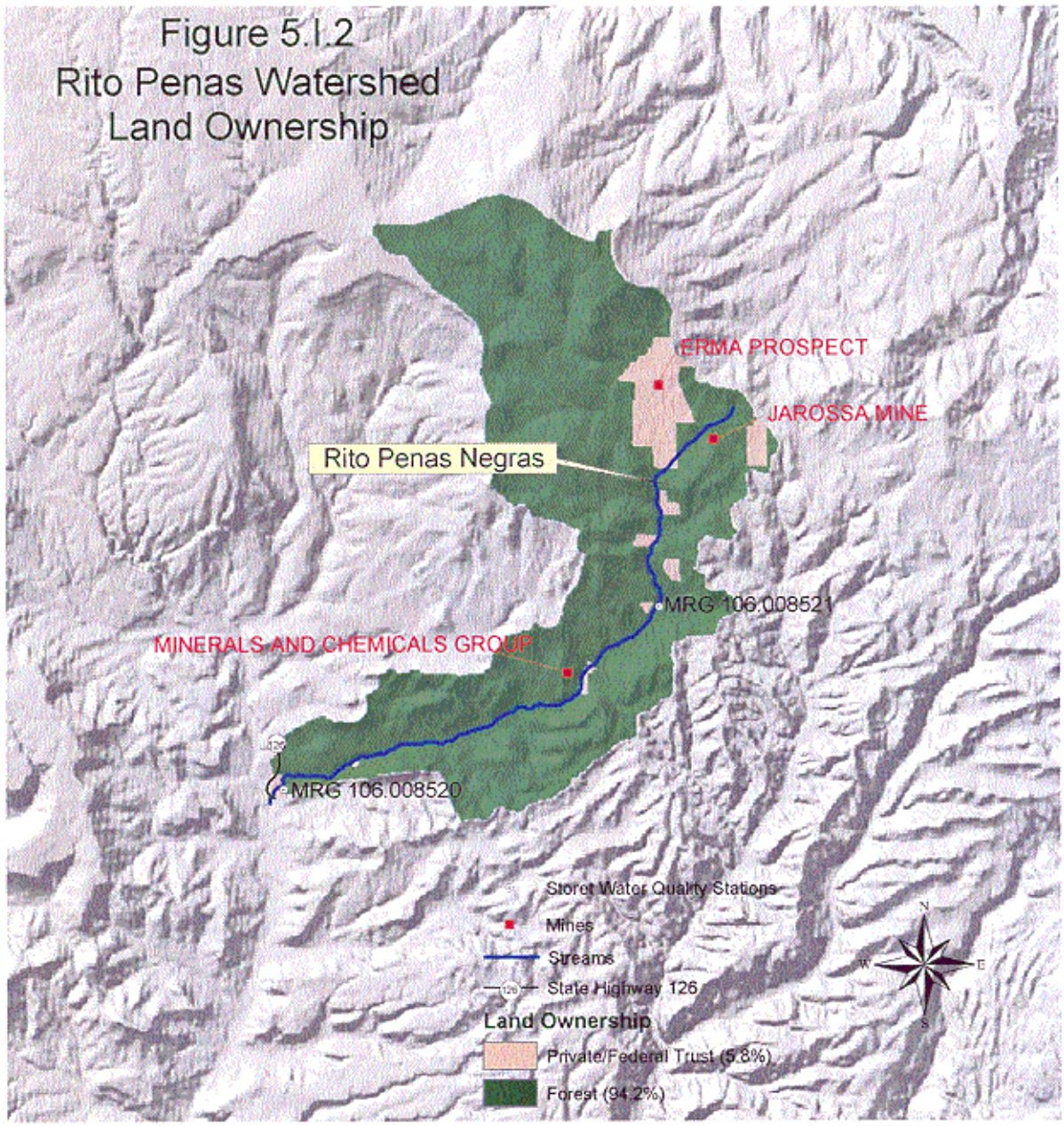
A thermograph was deployed at Station 20 on July 15 and retrieved September 28, 1998. A total of 117 measurements, out of 1,793 readings, exceeded the numeric temperature criterion of 20°C.

Photo 14. Rito Peñas Negras (NMED Sampling Station 21 - Thermograph T2)

Photo 15. Rito Peñas Negras (NMED Sampling Station 20 - Thermograph T3)

As previously stated, several exceedances of New Mexico water quality standards for TOC, temperature and stream bottom deposits were documented on the Rito Peñas Negras (from its mouth at the Rio de las Vacas to the headwaters). TMDL calculations for the Rito Peñas Negras for TOC, stream bottom deposits and temperature can be found in Sections 9, 11 and 12 of this report, respectively.

STORET STATION I.D.	NMED/SWQB STATION I.D.	LOCATION
MRG106.008520	20	Rito Peñas Negras at State Highway 126.
MRG106.008521	21	Rito Peñas Negras at Pipeline Road.



STORET STATION I.D.	NMED/SWQB STATION I.D.	LOCATION
MRG106.008520	20	Rito Peñas Negras at State Highway 126.
MRG106.008521	21	Rito Peñas Negras at Pipeline Road.