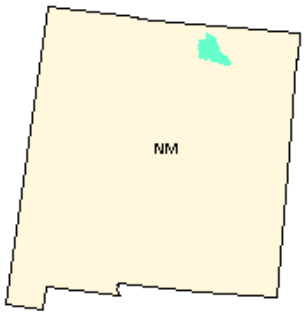
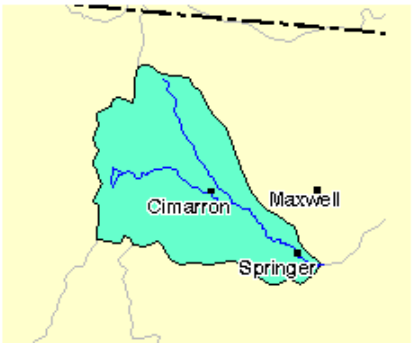
TOTAL MAXIMUM DAILY LOAD FOR TURBIDITY IN MIDDLE PONIL CREEK AND PONIL CREEK





Summary Table

New Mexico Standards Segment	Canadian River, 20.6.4.309 (formerly 2306)
Waterbody Identifier	•Middle Ponil Creek from the confluence with South Ponil Creek to the headwaters, 20.9 mi. •Ponil Creek from the mouth on the Cimarron River to the confluence of North Ponil and South Ponil Creeks (north and northwest of highway 64), 15.8 mi.
Parameter of Concern	Turbidity
Uses Affected	Middle Ponil Creek and Ponil Creek – domestic water supply, irrigation, high quality coldwater fishery, livestock watering, wildlife habitat, municipal and industrial water supply, and secondary contact.
Geographic Location	Canadian River Basin (Cimarron)
Scope/size of Watershed	1032 mi^2 (entire Cimarron) TMDL reaches: Middle Ponil 72 mi^2 and Ponil 333 mi^2
Land Type	Ecoregions: Southern Rockies (210, 211) Southwestern Tablelands (260, 261)
Land Use/Cover	Forest (51%), Rangeland (38%), Agriculture (9%), Urban (1.4%), Water (0.6%)
Identified Sources	Middle Ponil and Ponil - Streambank Modification/Destabilization, Removal of Riparian Vegetation, Rangeland, Recreation, Road Maintenance, and Natural
Watershed Ownership	Private (89%), Forest Service (9%), State (2%)
Priority Ranking	4
Threatened and Endangered Species	None
TMDL for: Turbidity (as TSS) Middle Ponil Creek Ponil Creek	 WLA(0) + LA(2616) + MOS(462)=**3078 lbs/day** WLA(0) + LA(2723) + MOS(303)=**3026 lbs/day**

Table of Contents

EXECUTIVE SUMMARY

Section 303(d) of the Federal Clean Water Act requires states to develop Total Maximum Daily Load (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 CFR Part 130 as the sum of the individual Waste Load Allocations (WLA) for point sources and Load Allocations (LA) for nonpoint sources, including a margin of safety (MOS), and natural background conditions.

The Cimarron River Basin is a sub-basin of the Canadian River Basin, located in northeastern New Mexico. Stations were located throughout the basin to evaluate the impact of tributary streams and to establish background conditions. As a result of this monitoring effort, several exceedances of New Mexico water quality standards for turbidity were documented on both Middle Ponil Creek and Ponil Creek. This TMDL document addresses turbidity for these two reaches.

A general implementation plan for activities to be established in the watershed is included in this document. The Surface Water Quality Bureau's Watershed Protection Pollution Section will further develop the details of this plan. Implementation of recommendations in this document will be done with full participation of all interested and affected parties. During implementation, additional water quality data will be collected. As a result targets will be re-examined and potentially revised; 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 not appropriate or if new standards are adopted, the load capacity will be adjusted accordingly. When water quality standards have been achieved, the reach will be removed from the TMDL list.

List of Abbreviations

BMP	**Best Management Practice**
BLM	**United States Department of Interior Bureau of Land Management**
CFS	**Cubic Feet per Second**
CWA	**Clean Water Act**
CWAP	**Clean Water Action Plan**
CWF	**Coldwater Fishery**
EPA	**United States Environmental Protection Agency**
FS	**United States Department of Agriculture Forest Service**
HQCWF	**High Quality Coldwater Fishery**
ISI	**Interstitial Space Index**
LA	**Load Allocation**
MGD	**Million Gallons per Day**
mg/L	**Milligrams per Liter**
MOS	**Margin of Safety**
MOU	**Memorandum of Understanding**
NMAC	**New Mexico Administrative Code**
NMED	**New Mexico Environment Department**
NMSHD	**New Mexico State Highway and Transportation Department**
NPDES	**National Pollutant Discharge Elimination System**
NPS	**Nonpoint Source**
NTU	**Nephelometric Turbidity Units**
SWQB	**Surface Water Quality Bureau**
TMDL	**Total Maximum Daily Load**
TSS	**Total Suspended Solids**
USGS	**United States Geological Survey**
UWA	**Unified Watershed Assessment**
WLA	**Waste Load Allocation**
WQLS	**Water Quality Limited Segment**
WQCC	**New Mexico Water Quality Control Commission**
WQS	**Water Quality Standards**

Background Information

The Cimarron River Basin is a sub-basin of the Canadian River Basin, located in northeastern New Mexico. This 1032 mi.^{2} watershed is characterized by both forest and rangeland (Figure 1) on mostly private land. In the areas around Middle Ponil Creek and Ponil Creek, the watershed is dominated by rangeland and agriculture on entirely private lands. Middle Ponil Creek (from the confluence with South Ponil Creek to the headwaters, 20.9 miles) flows through the Philmont Boy Scout Ranch with a sub-watershed size of 72 mi^2. Ponil Creek (from the mouth on the Cimarron River to the confluence of North Ponil and South Ponil Creeks, 15.8 miles) has a sub-watershed size of 333 mi^2 and flows east of the town of Cimarron.

Surface water quality monitoring stations were used to characterize the water quality of the stream reaches (see Figure 2). Stations were located to evaluate the impact of tributary streams and to establish background conditions. As a result of monitoring efforts, several exceedances of New Mexico water quality standards for turbidity were documented on Middle Ponil Creek and Ponil Creek. Middle Ponil Creek was also found to be impaired for temperature. Ponil Creek was also found to be impaired due to temperature and conductivity. TMDLs for these pollutants will be addressed in future TMDL documents.

Endpoint Identification

Target Loading Capacity

Overall, the target values for both turbidity TMDLs will be determined based on 1) the presence of numeric criteria, 2) the degree of experience in applying the indicator and 3) the ability to easily monitor and produce quantifiable and reproducible results. For this TMDL document target values for turbidity are based on numeric criteria.

Turbidity

According to New Mexico standards (20.6.4.12 NMAC) turbidity is defined as;

> Turbidity attributable to other than natural causes shall not reduce light transmission to the point that the normal growth, function, or reproduction of aquatic life is impaired or that will cause substantial visible contrast with the natural appearance of the water.

The State's standard leading to an assessment of use impairment is the numeric criteria stating that "turbidity shall not exceed 25 NTU" for the appropriate designated use of a high quality coldwater fishery (HQCWF). Both Middle Ponil and Ponil Creek fall into standard segment 20.6.4.309 (formerly 2306), which reads:

> Canadian River Basin – The Mora river and its tributaries upstream from the state highway bridge 434 bridge in Mora, all tributaries to the Mora river upstream from the USGS gaging station at La Cueva, Coyote Creek, the Cimarron River above state highway 21 in Cimarron, **all reaches of tributaries to the Cimarron river north and northwest of highway 64**, Rayado Creek above Miami lake diversion, Ocate Creek and its tributaries upstream of Ocate, and all other tributaries to the Canadian river northwest and north of U.S. highway 64 in Colfax county unless included in other segments.

Figure 1

Figure 2

Flow

Turbidity, or sediment, movement in a stream varies as a function of flow. As flow increases the concentration of sediment increases. These TMDLs are calculated for each reach at a specific flow; in this case the target flow was high flow (during which the turbidity exceedances occurred). When available, US Geological Survey (USGS) gages are used to estimate flow. Where gages are absent or poorly located along a reach, either actual flows (measured as water quality samples are taken) are used as target flows or geomorphological cross sectional information is taken to model the flows. Because there was no USGS gage station on Middle Ponil Creek, the flow used for this TMDL was the greatest flow taken during the field sampling season (taken May 11,1998) on this reach. Ponil Creek has a USGS gage station which was used to set the target high flow, the greatest monthly mean flow from USGS station #07207500 from 1916-1993 (USGS 1994). 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. Management of the load should set a goal at water quality standards attainment, not meeting the calculated target load.

*Calculation*s

A target load for turbidity is calculated based on a flow, the current water quality standards, and a unit-less conversion factor, 8.34 that is a used to convert mg/L units to lbs/day (see Appendix A for Conversion Factor Derivation). The target loads (TMDLs) predicted to attain standards were calculated using Equation 1 and are shown in Table 1.

Equation 1. critical flow (mgd) x standard (mg/L) x 8.34 (conversion factor) = target loading capacity

Table 1: Calculation of Target Loads

Location	Flow (mgd)	Standard TSS (mg/L)	Conversion Factor	Target Load Capacity (lbs/day)
Middle Ponil	30.5+	12.1*	8.34	3078
Ponil	44.8‡	8.1**	8.34	3026

+Because there is no USGS station on this reach, the flow is the greatest flow taken during the field sampling season (taken May 11,1998) on this reach.

‡Flow is the greatest monthly mean flow From USGS station #07207500 from 1916-1993 (USGS 1994).

*This value is calculated using the relationship established between TSS and turbidity ($y=0.4568x + 0.7151$) $R^2=0.63$ (Appendix B). The turbidity standard is 25 NTU.

**This value is calculated using the relationship established between TSS and turbidity ($y=1.0439x - 18.003$) $R^2=0.89$ (Appendix B). The turbidity standard is 25 NTU.

The currently measured loads were calculated using Equation 1. The flows used were either taken directly from a USGS gage or from field measurements. The geometric mean of the data that exceeded the standards from the data collected at each site for TSS and was substituted for the standard in Equation 1. The same conversion factor of 8.34 was used. Results are presented in Table 2.

Table 2: Calculation of Measured Loads

Location	Flow (mgd)	Field Measurements* (mg/L)	Conversion Factor	Measured Load (lbs/day)
Middle Ponil	30.5+	31	8.34	7784
Ponil	44.8‡	47	8.34	17561

+Because there is no USGS station on this reach, the flow is the greatest flow taken during the field sampling season (taken May 11,1998) on this reach.

‡Flow is the greatest monthly mean flow From USGS station #07207500 from 1916-1993 (USGS 1994).

*These are the geometric means of TSS values that exceeded the numeric standard. (Data used to calculate field measurements are in Appendix C)

Background loads were not possible to calculate in this watershed. A reference reach, having similar stream channel morphology and flow, was not found. It is assumed that a portion of the load allocation is made up of natural background loads. In future water quality surveys, finding a suitable reference reach will be a priority.

Waste Load Allocations and Load Allocations

•*Waste Load Allocation*

There are no point source contributions associated with this TMDL. The waste load allocation is zero.

•*Load Allocation*

In order to calculate the load allocation (LA) the waste load allocation (WLA), background, and margin of safety (MOS) were subtracted from the target capacity (TMDL) following Equation 2.

Equation 2. $WLA + LA + MOS = TMDL$

Results are presented in Table 3 (Calculation of TMDLs for Turbidity).

Table 3: Calculation of TMDL for Turbidity

Location	WLA (lbs/day)	LA (lbs/day)	MOS (lbs/day)	TMDL (lbs/day)
Middle Ponil	0	2616	462 (15 %)	3078
Ponil	0	2723	303(10%)	3026

The load reductions that would be necessary to meet the target loads were calculated to be the difference between the target load (Table 1) and the measured load (Table 2), and are shown in Table 4 (Calculation of Load Reductions). For example, for Middle Ponil Creek, achieving the target load of 3078 lbs/day would require a load reduction of 4706 lbs/day. Achieving the target load for turbidity on Middle Ponil Creek would require a load reduction of about 60%.

Table 4: Calculation of Load Reductions (in lbs/day)

Location	Target Load	Measured Load	Load Reduction
Middle Ponil	3078	7784	4076
Ponil	3026	17561	14535

Identification and Description of pollutant source(s)

Table 5: Pollutant Source Summary

Pollutant Sources	**Magnitude** (WLA + LA + MOS)	**Location**	**Potential Sources** (% from each)
Point: None	0	--------	0
Nonpoint:			100%
•Turbidity (as TSS in lbs/day)	3078	Middle Ponil	Streambank Modification/Destabilization, Removal of Riparian Vegetation, Rangeland, Recreation, Road Maintenance, and Natural
	3026	Ponil	Streambank Modification/Destabilization, Removal of Riparian Vegetation, Rangeland, Recreation, Road Maintenance, and Natural

Linkage of Water Quality and Pollutant Sources

Where available data are incomplete or where the level of uncertainty in the characterization of sources is large, the recommended approach to TMDLs requires the development of allocations based on estimates utilizing the best available information. Data that were collected and used for the calculation of the existing condition for both creeks, with respect to turbidity and TSS, are included in Appendix C.

SWQB fieldwork includes an assessment of the potential sources of impairment (SWQB/NMED 1999b). The Pollutant Source(s) Documentation Protocol, shown as Appendix D, provides an approach for a visual analysis of a pollutant source along an impaired reach. Although this procedure is subjective, SWQB feels that it provides the best available information for the identification of potential sources of impairment in this watershed. Table 5 (Pollutant Source Summary) identifies and quantifies potential sources of nonpoint source impairments along each reach as determined by field reconnaissance and assessment. A further explanation of the sources follows.

Middle Ponil Creek

The primary sources of impairment along this reach are streambank destabilization, removal of riparian vegetation, rangeland activities, recreation, and road maintenance. New Mexico 204, the unpaved road to the Philmont Boy Scout Ranch runs parallel to Middle Ponil Creek and may provide a conduit in places for sediment into the creek. Just above the confluence between Middle Ponil Creek and South Ponil Creek is a road crossing that is used by both animals and

vehicles. Along the creek are various animal holding areas and animals graze with full access to the stream. In places, streambanks are void of vegetation and are collapsing into the creek. The land surrounding this creek is predominately privately owned, with some lands managed by the Forest Service or State Game and Fish.

Results from biological sampling at selected sampling sites are used to support sediment protocol results. Middle Ponil Creek at Forest Road 1950 (station 13) was used as a reference station for the Middle Ponil Creek above Ponil Camp (station 15) station. The EPT (Ephemeroptera, Plecoptera, Tricoptera) Index at both sites was 6 and the Habitat condition at the Middle Ponil Creek above Ponil Camp station was 94% of the reference site. The habitat assessment scored both streams as being quite good, with the lower site rated comparable to the upper reference site. The biological comparison between the two sites however showed some differences in benthic communities. The community at the upper reference site was found to be diverse, populous and composed of numerous pollution-sensitive taxa. The lower Middle Ponil Creek site, although somewhat diverse and containing some pollution-sensitive taxa, was depauperate in overall numbers. This site also showed a loss in taxa and a shift from shredders to filter-collector feeders and, as a result, was rated as fully supporting, impacts observed. The loss in overall abundance of benthic macroinvertebrates at this site is of primary concern and may result from elevated siltation and embeddeness, which reduce the physical living space available for colonization.

Ponil Creek

Ponil Creek is formed with the confluence of North Ponil Creek and Middle Ponil Creek. Both North Ponil Creek and Middle Ponil Creek are impaired due to turbidity. It is possible that this creek is impaired due in part to upstream influences. The primary sources of impairment along this reach are streambank destabilization, removal of riparian vegetation, and road maintenance. This reach has been historically impacted by irrigated agriculture, rangeland, and runoff from roads. The land surrounding this creek is privately owned.

Results from biological sampling at selected sampling sites are used to support sediment protocol results. Rayado Creek near the USGS gage (station 10) was used as a reference station for Ponil Creek at the USGS gage (station 18). The EPT (Ephemeroptera, Plecoptera, Tricoptera) Index at both sites was 6 and the Habitat condition at the Ponil Creek station was 95 % of the reference site. The habitat assessment scored both streams as being good, with the Ponil Creek site rated comparable to the Rayado Creek reference site. The biological comparison between the two sites however showed differences in the benthic communities. Although there was a large shift from shredders to filter-collector feeders, indicating the possibility of impairment due to sedimentation, a comparison of the other metrics at the two sites showed only small differences, which, by themselves, were not of concern. When these metrics were totaled however, the small individual differences in the metric indices were enough to rate the Ponil Creek site as being somewhat impacted when compared to the Rayado Creek reference site. In this analysis Ponil Creek at station 18 was still rated as fully supporting with impacts observed.

Margin of Safety (MOS)

TMDLs should reflect a margin of safety based on the uncertainty or variability in the data, the point and nonpoint source load estimates, and the modeling analysis. For this TMDL, there will be no margin of safety for point sources, since there are none. However, for the nonpoint sources the margin of safety is estimated to be an addition of **10% for Ponil Creek and 15% for Middle Ponil Creek** for turbidity to the TMDL, excluding the background. This margin of safety incorporates several factors:

- *Errors in calculating NPS loads*

  A level of uncertainty exists in the sampling nonpoint sources of pollution. Accordingly, a conservative margin of safety for turbidity increases the TMDL by 10%.

- *Errors in calculating flow*

  For Middle Ponil Creek, flow estimates were based on actual flows measured in the field at the time of sampling. To be conservative, an addition of 5% MOS to account for accuracy of flow measures will be included.

  For Ponil Creek, flow estimates were based on actual USGS gage readings (station #07207500) and do not warrant additional MOS.

Consideration of seasonal variation

Data used in the calculation of this TMDL were collected during spring, summer, and fall in order to ensure coverage of any potential seasonal variation in the system (Appendix C). Critical condition is set to the highest flows for turbidity. Data where exceedances were seen (primarily during high spring flows and summer monsoons) were used in the calculation of the currently measured loads.

Future Growth

Estimations of future growth are not anticipated to lead to a significant increase for turbidity that cannot be controlled with best management practice implementation in this watershed. Middle Ponil Creek runs through State land, Federally managed lands, as well as private lands. While Ponil Creek is on private land.

Monitoring Plan

Pursuant to Section 106(e)(1) of the Federal Clean Water Act, the SWQB has established appropriate monitoring methods, systems and procedures in order to compile and analyze data on the quality of the surface waters of New Mexico. In accordance with the New Mexico Water Quality Act, the SWQB has developed and implemented a comprehensive water quality monitoring strategy for the surface waters of the State. The monitoring strategy establishes the methods of identifying and prioritizing water quality data needs, specifies procedures for acquiring and managing water quality data, and describes how these data are used to progress toward three basic monitoring objectives: to develop water quality-based controls, to evaluate the effectiveness of such controls and to conduct water quality assessments.

The SWQB utilizes a rotating basin system approach to water quality monitoring. In this system, a select number of watersheds are intensively monitored each year with an established return frequency of every five years.

The SWQB maintains current quality assurance and quality control plans to cover all monitoring activities. This document, "Quality Assurance Project Plan for Water Quality Management Programs" (QAPP) is updated annually (SWQB/NMED 199c). Current priorities for monitoring in the SWQB are driven by the 303(d) list of streams requiring TMDLs. Short-term efforts will be directed toward those waters which are on the EPA TMDL consent decree (Forest Guardians and Southwest Environmental Center v. Carol Browner, Administrator, US EPA, Civil Action 96-0826 LH/LFG, 1997) list and which are due within the first two years of the monitoring schedule. Once assessment monitoring is completed those reaches showing impacts and requiring a TMDL will be targeted for more intensive monitoring. The methods of data acquisition include fixed-station monitoring, intensive surveys of priority water bodies, including biological assessments, and compliance monitoring of industrial, federal and municipal dischargers, and are specified in the SWQB Assessment Protocol (SWQB/NMED 1998).

Long term monitoring for assessments will be accomplished through the establishment of sampling sites that are representative of the waterbody and which can be revisited every five years. This gives an unbiased assessment of the waterbody and establishes a long term monitoring record for simple trend analyses. This information will provide time relevant information for use in 305(b) assessments and to support the need for developing TMDLs.

The approach provides:

- a systematic, detailed review of water quality data, allowing for a more efficient use of valuable monitoring resources.
- information at a scale where implementation of corrective activities is feasible.
- an established order of rotation and predictable sampling in each basin which allows for enhanced coordinated efforts with other programs.
- program efficiency and improvements in the basis for management decisions.

It should be noted that a basin will not be ignored during its four year sampling hiatus. The rotating basin program will be supplemented with other data collection efforts. Data will be analyzed, field studies will be conducted, to further characterize identified problems, and TMDLs will be developed and implemented. Both long term and field studies can contribute to the 305(b) report and 303(d) listing processes.

The following schedule is a draft for the sampling seasons through 2002 and will be followed in a consistent manner to support the New Mexico Unified Watershed Assessment (UWA) and the Nonpoint Source Management Program. This sampling regime allows characterization of seasonal variation and through sampling in spring, summer, and fall for each of the watersheds.

1998 - Jemez, Chama (above El Vado), Cimarron (above Springer), Santa Fe, San Francisco
1999 - Chama (below El Vado), middle Rio Grande, Gila, Red River
2000 - Mimbres, Dry Cimarron, upper Rio Grande (part1)

2001 - Upper Rio Grande (part 2), upper Pecos (headwaters to Ft. Sumner), lower Pecos (Roswell south), Closed Basins, Zuni
2002 - Canadian Basin, lower Rio Grande, San Juan, Rio Puerco

Implementation Plan

Management Measures

Management measures are "economically achievable measures for the control of the addition of pollutants from existing and new categories and classes of nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives"(USEPA, 1993). A combination of best management practices (BMPs) will be used to implement this TMDL.

Introduction

Turbidity is a measurement of the reduction of the penetration of light through natural waters and is caused by the presence of suspended particles. Turbidity is a qualitative measure of water clarity or opacity and is reported in nephelometric turbidity units (NTU's). The turbidity standard addresses excessive sedimentation which can lead to the formation of bottom deposits that can impact the aquatic ecosystem. Turbidity is generally caused by suspended solids such as clay, silt, ash, plankton, and organic materials. Some level of turbidity is a function of a stream's natural process of moving water and sediment.

Examples of sources that can cause excessive turbidity include:

- runoff from exposed soil (such as construction sites),
- improperly maintained roads,
- eroded streambanks,
- activities that occur within a stream channel (such as some forms of mining,
- removal of riparian vegetation, and
- in some cases, naturally occurring situations such as runoff events.

Actions to be Taken

For this watershed the primary focus will be on the control of turbidity.

During the TMDL process in this watershed, point sources have been reviewed and will be addressed through the permit process. The nonpoint source contributions will need to address turbidity exceedances through BMP implementation.

There are a number of BMPs that can be utilized to address turbidity, depending on the source of the sediment. Such BMPs include:

1. Protection and/or development of healthy riparian buffer strips to serve as filters for soils that are transported during surface runoff. This runoff could be the result of activities in the

watershed that disturbed soils or caused a loss of vegetative ground cover. The riparian vegetation also helps to stabilize riverbanks with root structure which prevents excessive bank erosion and helps maintain the stability and natural morphology of the stream system. (Stream Corridor Restoration – Principles, Processes, and Practices, 1998, The Federal Interagency Stream Restoration Working Group);

2. Placement of silt fences between roads and watercourses to prevent soils that are disturbed during road and other construction activities from being carried into watercourses. Silt fences are a barrier that trap sediment that is carried during runoff events. When maintained properly, these silt fences are an effective erosion control measure that can be used throughout the State.(Erosion and Sediment Control Manual, 1993, Environment Department, Surface Water Quality Bureau);

3. Placement of straw mulch on soils that have lost cover from vegetative groundcover during severe forest fires. The straw mulch helps prevent erosion during rainstorms and snowmelt by holding the bare topsoil and ash in place. The mulch can also aid in the infiltration of water and replace ground litter. This method works well on gentle slopes where there is no wind. (Cerro Grande Fire Burned Area Emergency Rehabilitation (BAER) Plan, 2000, Interagency Baer Team.

Additional sources of information for possible BMPs to address turbidity are listed below. Some of these documents are available for viewing at the New Mexico Environment Department, Surface Water Quality Bureau, Watershed Protection Section Library, 1190 St Francis Drive, Santa Fe New Mexico.

Agriculture

- Internet websites:
  www.nm.nrcs.usda.gov

- Bureau of Land Management, 1990, Cows, Creeks, and Cooperation: Three Colorado Success Stories. Colorado State Office.

- Cotton, Scott E. and Ann Cotton, Wyoming CRM: Enhancing our Environment.

- Goodloe, Sid and Susan Alexander, Watershed Restoration through Integrated Resource Management on Public and Private Rangelands.

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- USEPA and The Northwest Resource Information Center, Inc., 1990, Livestock Grazing on Western Riparian Areas.

- USEPA and The Northwest Resource Information Center, Inc., 1993, Managing Change: Livestock Grazing on Western Riparian Areas.

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- New Mexico Natural Resources Department, 1983, Water Quality Protection Guidelines for Forestry Operations in New Mexico.

- New Mexico Department of Natural Resources, 1980, New Mexico Forest Practice Guidelines. Forestry Division, Timber Management Section

- State of Alabama. 1993. Alabama's Best Management Practices for Forestry.

Riparian and Streambank Stabilization

- Colorado Department of Natural Resources, Streambank Protection Alternatives. State Soil Conservation Board.

- Meyer, Mary Elizabeth, 1989, A Low Cost Brush Deflection System for Bank Stabilization and Revegetation.

- Missouri Department of Conservation, Restoring Stream Banks With Willows, (pamphlet).

- New Mexico State University, Revegetating Southwest Riparian Areas, College of Agriculture and Home Economics, Cooperative Extension Service, (pamphlet).

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- State of Tennessee, 1995, Riparian Restoration and Streamside Erosion Control Handbook. Nonpoint Source Water Pollution Management Program.

Roads

- Becker, Burton C. and Thomas Mills, 1972, Guidelines for Erosion and Sediment Control Planning and Implementation, Maryland Department of Water Resources, # R2-72-015.

- Bennett, Francis William, and Roy Donahue, 1975, Methods of Quickly Vegetating Soils of Low Productivity, Construction Activities, US EPA, Office of Water Planning and Standards Report # 440/9-75-006.

- Hopkins, Homer T. and others, Processes, Procedures, and Methods to control Pollution Resulting from all Construction Activity,.US EPA Office of Air and Water Programs, EPA Report 430/9-73-007.

- New Mexico Natural Resources Department, 1983, Reducing Erosion from Unpaved Rural Roads in New Mexico, A Guide to Road construction and Maintenance Practices. Soil and Water Conservation Division

- New Mexico State Highway and Transportation Department and USDA-Soil Conservation Service, Roadside Vegetation Management Handbook.

- New Mexico Environment Department, 1993, Erosion and Sediment Control Manual. Surface Water Quality Bureau.

- USDA Forest Service Southwestern Region, 1996, Managing Roads for Wet Meadow Ecosystem Recovery. FHWA-FLP-96-016.
  Section V. New Construction and Reconstruction
  Section VI. Remedial Treatments
  Section VII. Maintenance

- USEPA, 1992, Rural Roads: Pollution Prevention and Control Measures (handout).

Stormwater

- Delaware Department of Natural Resources and Environmental Control, 1997, Conservation Design for Stormwater Management: A Design Approach to Reduce Stormwater Impacts From Land Development and Achieve Multiple Objectives Related to Land Use. Sediment and Stormwater Program and The Environment Management Center, Brandywine Conservancy.

- State of Kentucky, 1994, Kentucky Best Management Practices for Construction Activity. Division of Conservation and Division of Water.

- USEPA, 1992, Storm Water Management for Construction Activities – Developing Pollution Prevention Plans and Best Management Practices, Summary Guidance, EPA 833-R-92-001, pgs. 7- 9.

Miscellaneous

- Interagency Baer Team, 2000, Cerro Grande Fire Burned Area Emergency Rehabilitation (BAER) Plan, Section F. Specifications.

- New Mexico Environment Department, 2000, A Guide to Successful Watershed Health. Surface Water Quality Bureau.

- Roley, William Jr., Watershed Management and Sediment Control for Ecological Restoration.

- Rosgen, David, 1996, Applied River Morphology, Chapter 8. Applications (Grazing, Fish Habitat).

- Rosgen, David, 1997, A Geomorphological Approach to Restoration of Incised Rivers.

- The Federal Interagency Stream Restoration Working Group, 1998, Stream Corridor Restoration. Principles, Processes, and Practices.
  Chapter 8 – Restoration Design
  Chapter 9 – Restoration implementation, Monitoring, and Management

- USDA Forest Service Southwestern Region, Soil and Water Conservation Practices Handbook.
  Section 22, Range Management
  Section 23, Recreation Management
  Section 24, Timber Management
  Section 25, Watershed Management
  Section 26, Wildlife and Fisheries Management
  Section 41, Access and Transportation Systems and Facilities

- Unknown, Selecting BMPs and other Pollution Control Measures.

- Unknown, Environmental Management. Best Management Practices.
  Construction Sites
  Developed Areas
  Sand and Gravel Pits
  Farms, Golf Courses, and Lawns

Other BMP Activities in the Watershed

The following are activities in this watershed that have occurred, are occurring, or are in the planning stages to address turbidity sources or other nonpoint source issues in the Ponil watershed (which includes Ponil and Middle Ponil Creeks).

The Carson National Forest has been and continues to be involved in management activities on lands in the upper reaches of the Ponil watershed. Many of these management activities are undertaken to address issues with sediment, turbidity, and water temperature. The Valle Vidal Unit (Unit), which includes portions of the upper Ponil watershed, was donated to the federal government in 1982 by Penzoil Corporation. Prior to the acquisition of the Unit, the area was managed as a private ranch. Mining, grazing and logging were all historic uses made of the land. Currently, the Valle Vidal is managed with an emphasis focused on recreation, wildlife and fisheries and grazing.

Currently, 865 head of cattle are permitted on the Valle Vidal Unit. Grazing activities within the Middle Ponil Creek are limited to 4-6 days per year as the cattle are herded from the east side to the west side of the Unit. In addition, the Forest Service utilizes a 500 acre pasture located near Shuree Lodge for approximately 2 months each summer for administrative use for 3 to 5 horses.

When the Valle Vidal was acquired approximately 350 miles of roads were in place. These roads supported the historic uses in place prior to acquisition by the Forest Service. Since that time approximately 300 miles have been closed or obliterated. The remaining road system serves to allow for public access and for administrative use. Vehicular access throughout the Unit is restricted to the road system, and no parking, other than in designated areas or along the roads, is allowed. OHV use is also prohibited.

Recreational developments consist of Cimarron Campground and the Shuree Ponds, which consist of fishing ponds, a trail system and fishing pier, and picnic tables and rest rooms. Dispersed camping is allowed, but campers must remain a minimum of 100 yards from streams and creeks and 300 yards from any man made water development. This requirement, in effect, prohibits dispersed camping from all but the headwaters of the Middle Ponil.

The Carson National Forest is also involved in stream restoration activities in the upper Ponil Watershed. The Ring Place Drainage is an ephemeral stream that was incised and eroded with a moving headcut. A volunteer effort was organized to address the problems on this system, utilizing methods that are affordable and easy to implement developed by Mr. Bill Zeedyk. The headcut was addressed and a series of one-rock dams were placed in the stream each year to

capture sediment, raise the streambed, and induce meandering. This has been a very successful project.

The Carson National Forest is planning to utilize similar methodologies on McCrystal Creek this year to stabilize the creek and re-create sinuosity in the system utilizing Mr. Zeedyk's expertise. In addition, other rehabilitation efforts will be implemented on other sections of the river reach that include bank grading and riparian planting.

Lastly, the Carson National Forest has used prescribed burning and timber stand improvements, namely thinning, in the Ponil watershed to reduce fuels and improve watershed conditions and wildlife habitat. These efforts will continue within program priorities and funding levels.

Coordination

In this watershed public awareness and involvement will be crucial to the successful implementation of this plan and improved water quality. Staff from the SWQB will work with stakeholders to provide the guidance in developing the Watershed Restoration Action Strategy (WRAS). The WRAS is a written plan intended to provide a long-range vision for various activities and management of resources in a watershed. It includes opportunities for private landowners and public agencies to reduce and prevent impacts to water quality. This long-range strategy will become instrumental in coordinating and achieving a reduction of turbidity and will be used to prevent water quality impacts in the watershed. SWQB staff will assist with any technical assistance such as selection and application of BMPs needed to meet WRAS goals.

The SWQB will work with stakeholders in this watershed to encourage the implementation of BMPs such as pinyon and juniper thinning in areas that have had excessive encroachment of these trees and which are an obvious source of surface runoff and gully formation. The SWQB will also work with the Philmont Boy Scout Ranch to determine if BMPs are needed to address potential impacts from concentrated use by the boy scouts. In addition, the SWQB will provide outreach and education to the Philmont Boy Scout Ranch regarding nonpoint source pollution issues and will encourage involvement by the Ranch and boy scouts in volunteer efforts to address water quality issues. The SWQB will encourage other landowners to implement, if applicable, new grazing management to address riparian and watershed issues. Since the induced meandering methodologies developed by Mr. Zeedyk have proven to be successful, landowners in the watershed will be encouraged to view the results of such efforts and use them in similar situations on their lands. Certain reaches in the Ponil watershed may be suitable for the re-introduction of beaver. Beaver have been proven as a very effective and affordable BMP to repair degraded streams systems. Their activities can bring about a rapid regrowth of riparian vegetation, change an ephemeral stream into a perennial stream, capture sediment, raise the water table, and reduce flood velocities. Lastly, the SWQB will encourage all landowners in the watershed to address road issues such as dirt roads that have been constructed without proper drainage controls to prevent sediment from reaching watercourses.

Stakeholders in this process will include SWQB, and other members of the Watershed Restoration Action Strategy such as the Carson National Forest, Vermejo Park, the Philmont

Boy Scout Ranch, the Town of Cimarron, the New Mexico State Highway Department, and other private landowners.

Implementation of BMPs within the watershed to reduce pollutant loading from nonpoint sources will be on a voluntary basis. Reductions from point sources will be addressed in revisions to discharge permits.

Stakeholder public outreach and involvement in the implementation of this TMDL will be ongoing.

Time Line

The following is an anticipated timeline for TMDL implementation in this watershed.

Implementation Actions	Year 1	Year 2	Year 3	Year 4	Year 5
Public Outreach and Involvement	X	X	X	X	X
Establish Milestones	X				
Secure Funding	X		X		
Implement Management Measures (BMPs)		X	X		
Monitor BMPs		X	X	X	
Determine BMP Effectiveness				X	X
Re-evaluate Milestones				X	X

319(h) Funding Options

The Watershed Protection Section of the SWQB provides USEPA 319(h) funding to assist in implementation of BMPs to address water quality problems on reaches listed on the 303(d) list or which are located within Category I Watersheds as identified under the Unified Watershed Assessment of the Clean Water Action Plan. These monies are available to all private, for profit, and nonprofit organizations that are authenticated legal entities, or governmental jurisdictions including: cities, counties, tribal entities, Federal agencies, or agencies of the State. Proposals are submitted by applicants through a Request for Proposals (RFP) process and require a non-federal match of 40% of the total project cost consisting of funds and/or in-kind services. Further information on funding from the Clean Water Act, Section 319(h) can be found at the New Mexico Environment Department website: www.nmenv.state.nm.us.

Assurances

New Mexico's Water Quality Act does not contain enforceable prohibitions directly applicable to nonpoint sources of pollution. The Act does authorize the Water Quality Control Commission to "promulgate and publish regulations to prevent or abate water pollution in the state" and to require permits. The Water Quality Act also states in §74-6-12(a):

> ***The Water Quality Act (this article) does not grant to the commission or to any other entity the power to take away or modify the property rights in water, nor is it the intention of the Water Quality Act to take away or modify such rights.***

In addition, the State of New Mexico Surface Water Quality Standards (see Section 1100E and Section 1105C) (NMWQCC 1995b) states:

> ***These water quality standards do not grant the Commission or any other entity the power to create, take away or modify property rights in water.***

New Mexico policies are in accordance with the federal Clean Water Act §101(g):

> ***It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this Act. It is the further policy of Congress that nothing in this Act shall be construed to supersede or abrogate rights to quantities of water which have been established by any State. Federal agencies shall co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.***

Nonpoint source water quality improvement work utilizes the voluntary approach. This provides technical support and grant money for the implementation of best management practices and other NPS prevention mechanisms through §319 of the Clean Water Act. Since this TMDL will be implemented through NPS control mechanisms the New Mexico Nonpoint Source Program is targeting efforts to this and other watersheds with TMDLs. The Nonpoint Source Program coordinates with the Nonpoint Source Taskforce. The Nonpoint Source Taskforce is the New Mexico statewide focus group representing federal and state agencies, local governments, tribes and pueblos, soil and water conservation districts, environmental organizations, industry, and the public. This group meets on a quarterly basis to provide input on the Section 319 program process, to disseminate information to other stakeholders and the public regarding nonpoint source issues, to identify complementary programs and sources of funding, and to help review and rank Section 319 proposals.

In order to ensure reasonable assurances for implementation in watersheds with multiple landowners, including Federal, State and private, NMED has established MOUs with several Federal agencies, in particular the Forest Service and the Bureau of Land Management. MOUs have also been developed with other State agencies, such as the New Mexico Highway Department. These MOUs provide for coordination and consistency in dealing with nonpoint source issues.

New Mexico's Clean Water Action Plan has been developed in a coordinated manner with the State's 303(d) process. All Category I watersheds identified in New Mexico's Unified Watershed Assessment process are totally coincident with the impaired waters list for 1996 and 1998 approved by EPA. The State has given a high priority for funding assessment and restoration activities to these watersheds.

The time required to attain standards for all reaches is estimated to be approximately 10-20 years. This estimate is based on a five-year time frame implementing several watershed projects that may not be starting immediately or may be in response to earlier projects. The cooperation

of the Vermejo Ranch, the Philmont Boy Scout Ranch, Carson National Forest, the Town of Cimarron, the New Mexico State Highway and Transportation Department and other landowners will be pivotal in the implementation of this TMDL.

Milestones

Milestones will be used to determine if control actions are being implemented and standards attained. For this TMDL, several milestones will be established which will vary and will be determined by the BMPs implemented. Examples of milestones for turbidity include a decrease in measured turbidity values, a decrease in erosion from streambanks, an increase in established riparian vegetation, or an increase in the miles of properly maintained roads.

Milestones will be coordinated by SWQB staff and will be re-evaluated periodically, depending on which BMPs were implemented. Further implementation of this TMDL will be revised based on this reevaluation. As additional information becomes available during the implementation of the TMDL, the targets, load capacity, and allocations may need to be changed. In the event that new data or information shows that changes are warranted, TMDL revisions will be made with assistance of watershed stakeholders. The re-examination process will involve: monitoring pollutant loading, tracking implementation and effectiveness of controls, assessing water quality trends in the waterbody, and re-evaluating the TMDL for attainment of water quality standards. Although specific targets and allocations are identified in the TMDL, the ultimate success of the TMDL is not whether these targets and allocations are met, but whether beneficial uses and water quality standards are achieved.

Public Participation

Public participation was solicited in development of these TMDLs. See Appendix E for flow chart of the public participation process. The draft TMDLs were made available for a 30-day comment period starting **April 10, 2001**. Response to comments is attached as Appendix E of this document. The draft document notice of availability was extensively advertised via newsletters, email distribution lists, webpage postings (http://www.nmenv.state.nm.us/) and press releases to area newspapers.

References Cited

Forest Guardians and Southwest Environmental Center v. Carol Browner, Administrator, US EPA, Civil Action 96-0826 LH/LFG, 1997.

SWQB/NMED. 1999b. Draft Pollutant Source Documentation Protocol.

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SWQB/NMED. 1998. State of New Mexico Procedures for Assessing Standards Attainment for 303(d) List and 305(b) Report Assessment Protocol

USEPA. 1993. Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters. EPA-840-B-92-002. Washington, D.C.

USGS. 1994. Water Resources Data New Mexico Water Year 1993. Data Report NM-93-1. Albuquerque, NM.

Appendices

Appendix A. Conversion Factor Derivation

Appendix B: Relationship Between Total Suspended Sediment and Turbidity for Ponil Creek and Middle Ponil Creek

Appendix C: Data used for TMDL Field Measurement Calculations in Table 2.

Appendix D: Pollutant Source(s) Documentation Protocol

Appendix D: Public Participation Process Flowchart

Appendix E: Response to Comments

8.34 Conversion Factor Derivation

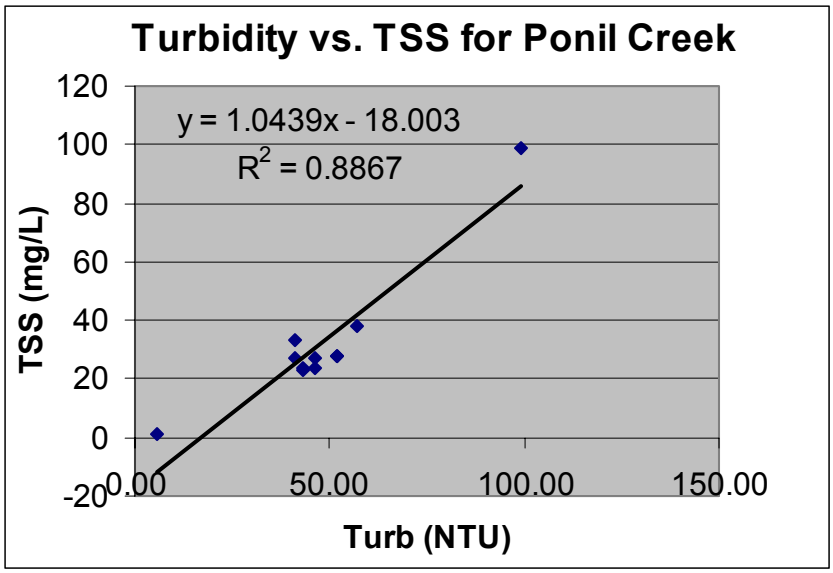
Million gallons/day **x** Milligrams/liter **x** 8.34 = pounds/day

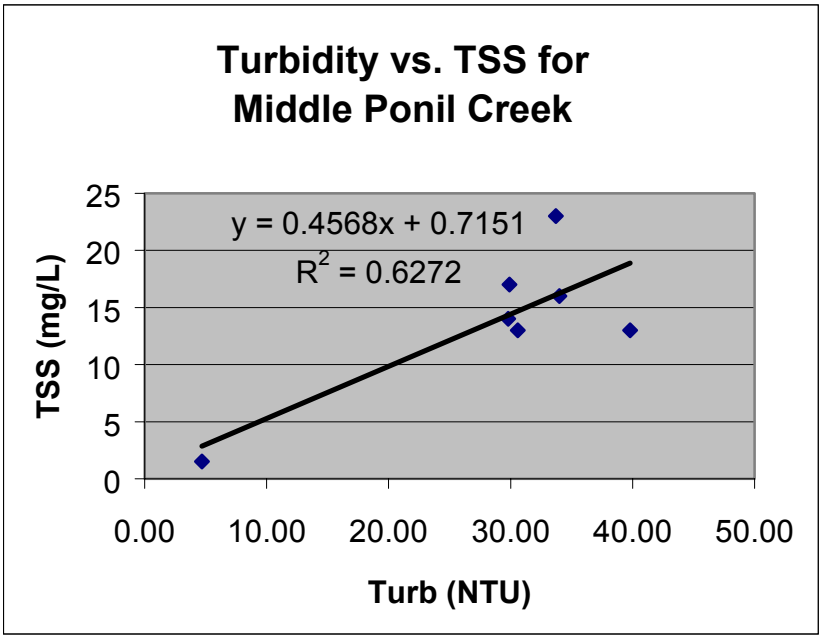
10^6~~gallons~~/day **x** 3.7854 liters/~~1 gallon~~ **x** 10^{-3}gram/liter **x** 1 pound/454 ~~grams~~ = pounds/day

10^6 (10^{-3}) (3.7854)/454 = 3785.4/454

= 8.3379
= **8.34**

Appendix B: Relationship Between Total Suspended Sediment and Turbidity for Ponil Creek and Middle Ponil Creek





Appendix C: Data used for TMDL Field Measurement Calculations in Table 2.

Sampling Site	Date	Time	Turb (NTU)	TSS (mg/L)
Ponil Creek at USGS gauge	980511	1640	43.40	24
Ponil Creek at USGS gauge	980511	1640	43.40	23
Ponil Creek at USGS gauge	980512	1150	46.00	24
Ponil Creek at USGS gauge	980512	1150	46.00	27
Ponil Creek at USGS gauge	980513	1525	41.10	27
Ponil Creek at USGS gauge	980513	1525	41.10	33
Ponil Creek at USGS gauge	980514	1130	52.10	28
Ponil Creek at USGS gauge	980514	1130	52.10	28
Ponil Creek at USGS gauge	980728	1415	99.40	99
Ponil Creek at USGS gauge	980729	1250	56.90	38
Ponil Creek at USGS gauge	981006	1415	5.86	1.5*

Sampling Site	Date	Time	Turb (NTU)	TSS (mg/L)
Middle Ponil abv Ponil Camp	980511	1150	39.80	13
Middle Ponil abv Ponil Camp	980512	1245	34.00	16
Middle Ponil abv Ponil Camp	980513	1440	30.60	13
Middle Ponil abv Ponil Camp	980514	1240	29.80	14
Middle Ponil abv Ponil Camp	980728	1200	29.90	17
Middle Ponil abv Ponil Camp	980729	1130	33.70	23
Middle Ponil abv Ponil Camp	981006	1250	4.7	1.5*

*This value was reported as less than 3 mg/L from the laboratory so a value of 1.5 mg/L is used for calculations and analysis.

POLLUTANT SOURCE(S) DOCUMENTATION PROTOCOL

This protocol was designed to support federal regulations and guidance requiring states to document and include probable source(s) of pollutant(s) in their §303(d) lists as well as the States §305(b) Report to Congress.

The following procedure should be used when sampling crews are in the field conducting water quality surveys or at any other time field staff are collecting data.

Pollutant Source Documentation Steps:

1). Obtain a copy of the most current §303(d) list.

2). Obtain copies of the ***Field Sheet for Assessing Designated Uses and Nonpoint Sources of Pollution***.

3). Obtain 35mm camera that has time/date photo stamp on it. **DO NOT USE A DIGITAL CAMERA FOR THIS PHOTODOCUMENTATION**

4). Identify the reach(s) and probable source(s) of pollutant in the §303(d) list associated with the project that you will be working on.

5). Verify if current source(s) listed in the §303(d) list are accurate.

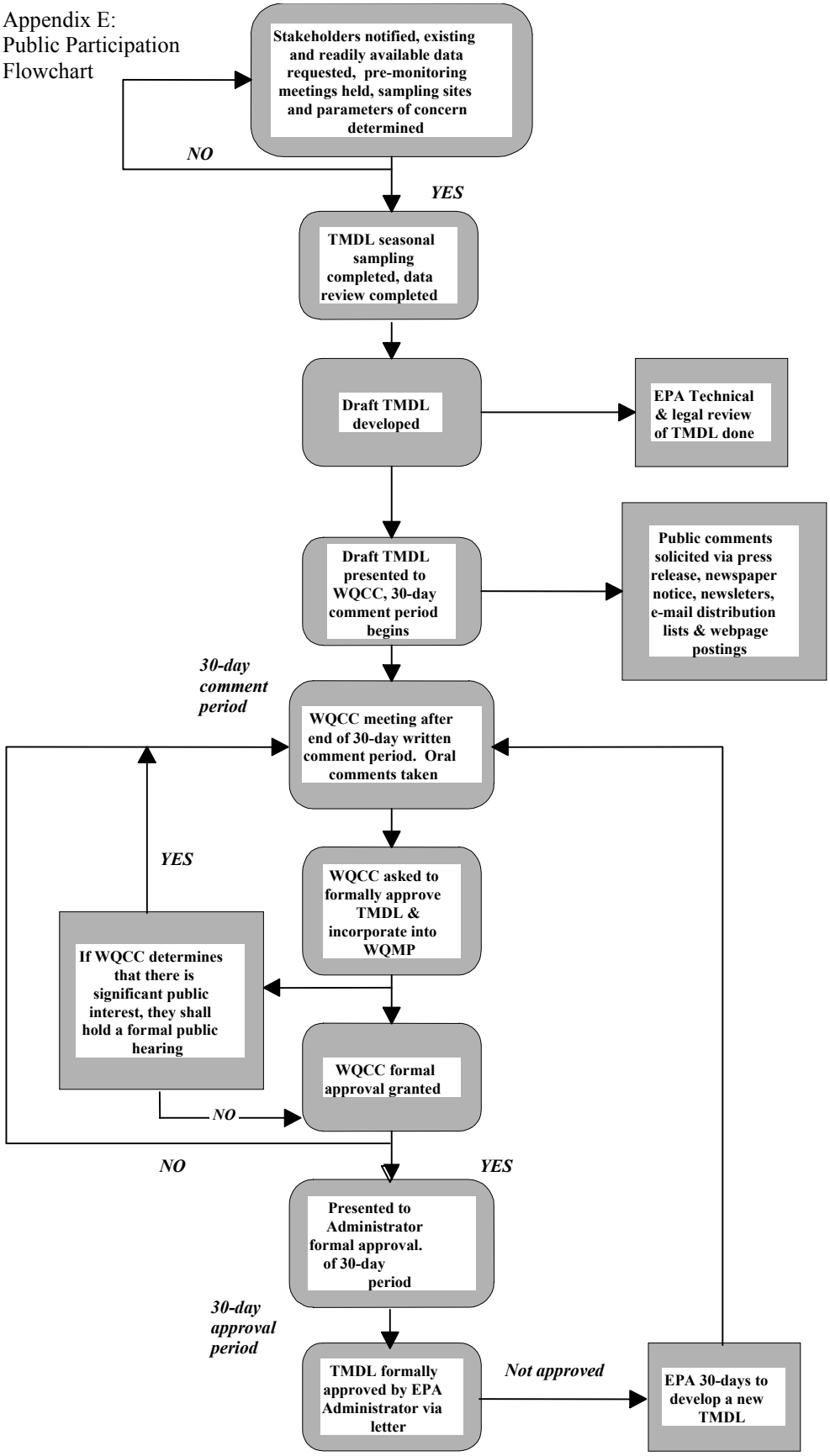
6). Check the appropriate box(s) on the field sheet for source(s) of nonsupport and estimate percent contribution of each source.

7). Photodocument probable source(s) of pollutant.

8). Create a folder for the TMDL files, insert field sheet and photodocumentation into the file.

This information will be used to update §303(d) lists and the States §305(b) Report to Congress.

Appendix E:
Public Participation
Flowchart



Cimarron Watershed Public Meeting Attendees
(Discussion of Draft TMDLs)
2 May 2001

Name	Affiliation	Mailing Address	Phone/Fax Nos.	E-mail Address
Julia Davis Stafford	OS Ranch	RR 1 Box 62 Cimarron, NM	505) 376-2827 505) 376-2595	
Charles N. Walker	NRCS	245 Park Ave Raton, NM 87740	505-445-9571	
Scott Berry	K.S. Berry Engineering	808 South 2nd St. Raton, NM 87740	505-445-6132	
THOMAS HATCHET	AVID	RT 1 BOX 44 SPRINGER NM 87747	447-9663	
BOB RICKLEFS	PHILMONT	RT 1 Box 35 CIMARRON 87714	376 2281 376 2602	
Gretchen Summis	CHASE RANCH	PO Box 227	505 376 2398 505 376 2105	
Doug T. Parker	PARKER	PO Box 360	505 376 2584	PARKERSV @ CIMARRON. SPRINGER COOP. COM

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ENVIRONMENT DEPARTMENT
ATTN: STEPHANIE STRINGER
P.O. BOX 26110
SANTA FE, NM 87502

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LEGAL NO: 69110 P.O.#: 01064100651
207 LINES 2 time(s) at $ 163.83
AFFIDAVITS: 5.25
TAX: 10.57
TOTAL: 179.65

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE
I, MM Weideman being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #69110 a copy of which is hereto attached was published in said newspaper 2 day(s) between 04/06/2001 and 04/09/2001 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 6 day of April, 2001 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ MM Weideman
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 9 day of April A.D., 2001

Notary Laura E. Harding

Commission Expires 11/23/03

NOTICE OF A 30-DAY PUBLIC COMMENT PERIOD AND COMMUNITY MEETING FOR DRAFT TOTAL MAXIMUM DAILY LOADS (TMDLs)

THE NEW MEXICO ENVIRONMENT DEPARTMENT, SURFACE WATER QUALITY BUREAU ON THE PROPOSED TOTAL MAXIMUM DAILY LOADS (TMDLs) FOR PONIL AND MIDDLE PONIL CREEKS

The New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) is inviting the public to comment on draft "total maximum daily loads" (TMDLs) for Ponil and Middle Ponil Creeks. Both creeks are located in Colfax County near the Town of Cimarron. The SWQB will hold a community meeting on Wednesday, May 2nd, from 6:30 p.m. to 8:30 p.m. at the Cimarron Village Hall, 356-B East 9th St. to allow public input on the draft TMDLs for the above- mentioned creeks.

A TMDL is a specific, water quality goal and a means for recommending controls needed to meet water quality standards in a particular water or watershed. Establishing a TMDL is an important step in watershed protection because it sets quantified goals for water quality conditions that may then determine what actions are needed to restore or protect the health of the waterbody. Ponil Creek (from the mouth on the Cimarron River to the confluence of North Ponil and South Ponil Creeks, 15.8 miles) has a subwatershed size of 333 square miles and flows east of the town of Cimarron. Middle Ponil Creek (from the confluence with South Ponil Creek to the headwaters, 20.9 miles) flows through the Philmont Boy Scout Ranch with a subwatershed size of 72 square miles.

Pollutants of concern for **Ponil Creek** are those which exceeded the state surface water quality standards. These include metals (specifically, chronic aluminum), temperature and turbidity. **Middle Ponil Creek** exceeded the state surface water quality standard for temperature and turbidity.

The New Mexico Water Quality Control Commission (NMWQCC) will hold a regular public meeting at 9:00 a.m. on Tuesday, April 10, 2001 at the State Land Office, Morgan Hall, 310 Old Santa Fe Trail, Santa Fe, New Mexico. This meeting will be the start of the 30-day public comment period for the Ponil and Middle Ponil Creek TMDLs. The 30-day public comment period for the Ponil and Middle Ponil Creek TMDLs ends May 9, 2001 at 5:00 p.m. mountain daylight time. **Final Ponil and Middle Ponil Creek TMDLs will be submitted to the New Mexico Water Quality Control Commission (NMWQCC) for their formal approval at the scheduled public meeting tentatively set for June 12, 2001 at which time public comments will also be accepted.**

For more information, contact **David Hogge, in the NMED SWQB, at P.O. Box 26110, Santa Fe, New Mexico, 87502 or by calling (505) 827-2981.** The draft TMDLs will also be posted in the TMDL Development Section of the Surface Water Quality Bureau's website (by April 10, 2001), which can be found at: www.nmenv.state.nm.us/swqb/swqb.html
Legal #69110
Pub. Apr. 6 & 9, 2001

STATE OF NEW MEXICO
County of Santa Fe SS

Bill Tafoya, being duly sworn, declares and says that he is Classified Advertising Manager of **The Journal North**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 2 times, the first publication being on the 7 day of Apr., 2001, and the subsequent consecutive publications on Apr. 9, 2001.

Sworn and subscribed to before me, a Notary Public, in and for the County of Bernalillo and State of New Mexico this 9 day of April, 2001.

PRICE 80.08

Statement to come at end of month.

ACCOUNT NUMBER C83171

CLA-22-A (R-4-97)

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STATE O
My Commission Expires:

NOTICE OF 30-DAY PUBLIC COMMENT PERIOD AND COMMUNITY MEETING FOR DRAFT TOTAL MAXIMUM DAILY LOADS (TMDLs)

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Pollutants of concern for **Ponil Creek** are those which exceeded the state surface water quality standards. These include metals (specifically, chronic aluminum), temperature and turbidity. **Middle Point Creek** exceeded the state surface water quality standard for temperature and turbidity.

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Journal North: April 7, 9, 2001

Appendix E: Response to Comments

No comments were received.