

APPENDIX A

Montana Water Quality Law

As directed by the Clean Water Act, the State of Montana developed a water quality classification system, developed water quality standards to be applied to various water classes and identified water bodies that do not meet standards.

The Montana Department of Environmental Quality has classified all waters within the project area as B-1 waters. The beneficial uses associated with B-1 waters include drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl, and furbearers; and agricultural and industrial water supply (Administrative Rules of Montana (ARM) 17.30.620/623).

The Montana Water Quality Act – Surface Water Quality Standards require that land management activities must not generate pollutants in excess of those that are naturally occurring, regardless of the stream’s classification. Under ARM 17.30.623 (2) (f) No increases are allowed above naturally occurring concentrations of sediment, settleable solids, oils or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds fish, or other wildlife. Naturally occurring is defined in ARM 17.30.602 as: “the water quality condition resulting from runoff or percolation, over which man has no control, or from developed lands where all reasonable land, soil and water conservation practices are commonly called Best Management Practices (BMPs). BMPs are considered reasonable only if beneficial uses are fully supported. The Forest Service will utilize the following BMPs to ensure compliance with State Water Quality Laws:

- 15.02 – General Guidelines for the Location and Design of Roads and Trails
- 15.03 – Road and Trail Erosion Control Plan
- 15.04 – Timing of Construction Activities
- 15.05 - Slope Stabilization and Prevention of Mass Failures
- 15.06 – Mitigation of Surface Erosion and Stabilization of Slopes
- 15.07 – Control of Permanent Road Drainage
- 15.09 – Timely Erosion Control Measures on Incomplete Roads and Stream-crossing Projects
- 15.10 – Control of Road Construction Excavation and Sidecast Material
- 15.12 – Control of Construction in Riparian Areas
- 15.13 – Controlling In-Channel Excavation
- 15.16 – Bridge and Culvert Installation (Disposition of Surplus Material/Protection of Fisheries)
- 15.17 – Regulation of Borrow Pits, Gravel Sources and Quarries
- 15.19 – Streambank Protection
- 15.20 -- Water Source Development Consistent with Water Quality Protection
- 15.21 – Maintenance of Roads
- 15.23 – Traffic Control During Wet Periods
- 15.27 – Trail Maintenance and Rehabilitation

These BMPs are further described in the Forest Service Soil and Water Conservation Practices Handbook (USDA Forest Service 1995).

It is important to recognize that the Forest Service does not have authority to develop TMDLs. The authority lies with the State. On streams with multiple ownership, the Forest Service cooperates with the State and other adjacent landowners in the development process.

Additionally, the listing of a stream does not preclude management activities. Montana Code Annotated (MCA) 75-5-703(10)(c), states: (10) Pending completion of a TMDL on a water body listed pursuant to 75-5-702: (c) new or expanded non-point source activities affecting a listed water body may commence and continue their activities provided those activities are conducted in accordance with reasonable land, soil and water conservation practices (Best Management Practices).

Riparian and stream conditions are also assessed by the Montana Department of Environmental Quality to determine water quality limited stream segments (WQLS). Water quality limited streams do not fully support their uses and therefore, do not fully meet water quality standards. The 1996 Montana 303(d) List (MT-DEQ, 1996) identifies eight streams within the project area as being water quality limited; Smith River, Sheep Creek, Carpenter Creek, Galena Creek, Dry Fork Belt Creek, and Belt Creek. In addition, impaired portions of the North Fork Musselshell and the South Fork Judith River are near the Forest.

Water Quality Limited Streams from 1996 List

Stream Name	Impaired Use	Cause of Impairment	Probable Source of Impairment	Contribution from Forest	Location of Impaired Segment
Smith River	Aquatic Life Support, Cold Water Fishery-Trout	Flow Alterations, Siltation, Thermal modification	Agricultural, Irrigated Crop production, Resource Extraction, Range land, Silviculture	Minimal	From North and South Forks to Hound Ck
Sheep Creek	Aquatic Life Support, Cold Water Fishery-Trout	Flow Alteration, Other habitat alteration, Siltation	Channelization, Highway/Road/Bridge Construction, Irrigation Crop Production, Range Land, Silviculture	Moderate	Headwaters to the mouth (Smith R.)
Carpenter Creek	Aquatic Life Support, Cold Water Fishery-Trout, Drinking, Recreation, Swim	Metals, pH	Highway/Road/Bridge Construction, Resource extraction, Subsurface Mining	Severe	From headwaters to the mouth (Belt Creek)
Galena Creek	Aquatic Life Support, Cold Water Fishery-Trout, Drinking, Recreation, Swim	Metals	Subsurface Mining	Severe	From the headwaters to the mouth (North Fork Belt Creek)
Dry Fork Belt Creek	Aquatic Life Support, Cold Water Fishery-Trout, Drinking, Recreation, Swim	Metals, pH	Resource Extraction, Subsurface Mining	Severe	
Belt Creek	Aquatic Life Support, Cold Water Fishery-Trout, Drinking, Recreation, Agriculture Swim	Metals, Nutrients, Other Habitat Alterations, Siltation, Thermal modification, pH	Agricultural, Highway/Road/Bridge Construction, Resource extraction, Subsurface Mining, Range Land, Silviculture, Subsurface Mining	Moderate	From Carpenter Creek to Otter Creek

Stream Name	Impaired Use	Cause of Impairment	Probable Source of Impairment	Contribution from Forest	Location of Impaired Segment
North Fork Musselshell River	Aquatic Life Support, Cold Water Fishery-Trout	Siltation	Nutrients	Moderate	
South Fork Judith River	Aquatic Life Support, Cold Water Fishery-Trout	Siltation	Agricultural, Highway/Road/Bridge Construction, Natural Sources, Range Land, Silviculture,	Moderate	From headwaters to the mouth.

The Montana Department of Environmental Quality released the Montana 2004 Integrated Water Quality Report (MT-DEQ 2004) on November 24, 2004. The 2004 report contains revisions to the list of impaired waters, changes in assessment information for waters already on the list, and changes to the schedule for preparing total maximum daily loads or TMDLs. A TMDL is now considered the total amount of a pollutant that a water body may receive from all sources without exceeding water quality standards. The following table summarizes the 2004 Montana 303(d) list for impaired segments in or near the project area.

2004 Listing of Water Quality Limited Streams

Stream Name	Impaired Use (1)	Cause of Impairment	Probable Source of Impairment	Contribution from Forest	Location of Impaired Segment
Smith River	Aquatic Life Support, Cold Water Fishery, Trout, Drinking(F) Recreation, Swimmable	Phosphorus, dewatering, pathogens, nutrients, flow alterations	Agriculture, crop-related production, grazing related sources	Minimal	From North and South Forks to Hound creek
Sheep Creek	Aquatic Life(X), Cold Water Fishery, Trout(X), Drinking(N), swimming(N), Agriculture (F), Industry(F)	Pathogens, metals, mercury	Other, resource extractions, placer mining	Minimal	Headwaters to the mouth (Smith R.)
Belt Creek	Aquatic Life(N), Cold Water Fish(N), Drinking Water(N), Swimming(F), Agriculture(P), Industry(P)	Metals, Siltation, Bank Erosion, Fish Habitat degradation, Other habitat alterations	Grazing, Agriculture, Highway/Road/Bridge Construction, Acid Mine Drainage, Resource Extraction, Channelization, hydromodification,	Severe	From Carpenter Creek to Otter Creek
Carpenter Creek	Aquatic Life(N), Cold Water Fish(N), Drinking Water(N), Swimming(X), Agriculture(X), Industry(X)	Lead, Mercury, Metals, Copper, Cadmium	Mine Tailing, Acid Mine Drainage, Abandoned Mining, Resource Extraction	Severe	From headwaters to the mouth (Belt Creek)

Stream Name	Impaired Use (1)	Cause of Impairment	Probable Source of Impairment	Contribution from Forest	Location of Impaired Segment
Galena Creek	Aquatic Life(N), Cold Water Fish(N), Drinking Water(N), Swimming(N), Agriculture(N), Industry(N)	Metals, Cadmium, Copper, Lead, Zinc	Mine Tailing, Acid Mine Drainage, Contaminated sediment, Resource Extraction	Severe	From the headwaters to the mouth (North Fork Belt Creek)
Dry Fork Belt Creek	Aquatic Life(N), Cold Water Fish(N), Drinking Water(N), Swimming(P), Agriculture(N), Industry(F)	Metals Cadmium, Copper, Lead, Zinc	Mine Tailing, Acid Mine Drainage, Resource Extraction	Severe	From headwaters to the mouth(dry Fork Belt Creek)
South Fork Judith	Aquatic Life(P), Cold Water Fish(P), Drinking Water(X), Swimming(X), Agriculture(F), Industry(F)	Other Habitat Alterations, Fish Habitat, Alterations, Siltation	Grazing Related Sources, Logging Road Construction/Maintenance, Land Development, Agriculture, Silviculture, Construction	High	From headwaters to the mouth.

(1) F=Fully support; T=Threatened; P=Partially Supporting; N=Not Supporting; X=Not Assessed

The Smith River segment is located from North and South Fork to Hound Creek. The major source of impairment on National Forest (NF) lands is from grazing related activities. Sheep Creek segment is located from the headwaters to its mouth at the Smith River. Major impairment on NF lands for Sheep Creek is resource extraction. The Belt Creek Segment is located from the mouth of Carpenter Creek to its mouth at the Missouri River. The major impairment for this segment on NF lands is resource extraction, Highway, Road and Bridge construction. The watershed of Carpenter and Dry Fork Belt and Galena Creeks are found entirely within NF lands and flow into the mainstem of Belt Creek. The major impairment of these three segments are resource extraction, heavy metals, acid mine drainage. The South Fork Judith segment is located from the headwaters to the mouth. The major impairment for this segment is grazing related sources, logging road construction and maintenance, land development, and agriculture.

None of the listed waterbodies have completed TMDLs and their development is not scheduled soon. All segments have been assessed for beneficial uses supported.