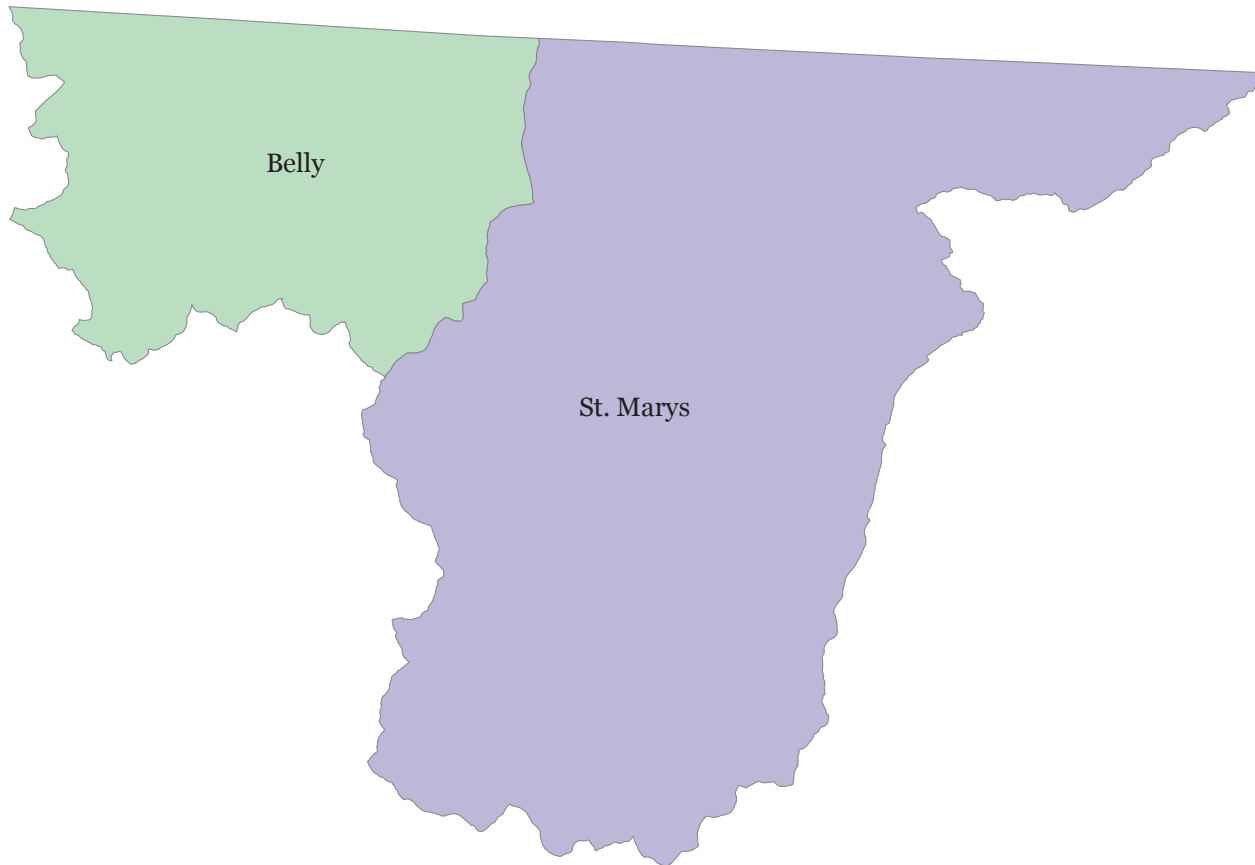


ST WTRSHD	HUC	HUC Name	ST WTRSHD	HUC	HUC Name
Upper South Saskatchewan River	09040001	St. Marys	Missouri-Poplar	10060004	West Fork Poplar
	09040002	Belly		10060005	Charlie-Little Muddy
Missouri Headwaters	10020001	Red Rock	Upper Yellowstone	10060006	Big Muddy
	10020002	Beaverhead		10060007	Brush Lake Closed Basin
	10020003	Ruby		10070001	Yellowstone Headwaters
	10020004	Big Hole		10070002	Upper Yellowstone
	10020005	Jefferson		10070003	Shields
	10020006	Boulder		10070004	Upper Yellowstone-Lake Basin
	10020007	Madison		10070005	Stillwater
	10020008	Gallatin		10070006	Clarks Fork Yellowstone
Upper Missouri	10030101	Upper Missouri	Big Horn	10070007	Upper Yellowstone-Pompeys Pillar
	10030102	Upper Missouri-Dearborn		10070008	Pryor
	10030103	Smith		10080010	Big Horn Lake
	10030104	Sun		10080014	Shoshone
	10030105	Belt		10080015	Lower Bighorn
Marias	10030201	Two Medicine	Tongue	10080016	Little Bighorn
	10030202	Cut Bank		10090101	Upper Tongue
	10030203	Marias	Powder	10090102	Lower Tongue
	10030204	Willow		10090207	Middle Powder
	10030205	Teton		10090208	Little Powder
Fort Peck Lake	10040101	Bullwhacker-Dog		10090209	Lower Powder
	10040102	Arrow	Lower Yellowstone	10090210	Mizpah
	10040103	Judith		10100001	Lower Yellowstone-Sunday
	10040104	Fort Peck Reservoir		10100002	Big Porcupine
	10040105	Big Dry		10100003	Rosebud
	10040106	Little Dry		10100004	Lower Yellowstone
Musselshell	10040201	Upper Musselshell	Little Missouri/ Belle Fourche	10100005	O'Fallon
	10040202	Middle Musselshell		10110201	Upper Little Missouri
	10040203	Flat Willow		10110202	Boxelder
	10040204	Box Elder		10110203	Middle Little Missouri
	10040205	Lower Musselshell		10110204	Beaver
Milk	10050001	Milk Headwaters	Kootenai	10120202	Lower Belle Fourche
	10050002	Upper Milk		17010101	Middle Kootenai
	10050003	Wild Horse Lake		17010102	Fisher
	10050004	Middle Milk		17010103	Yaak
	10050005	Big Sandy		17010104	Lower Kootenai
	10050006	Sage		17010105	Moyie
	10050007	Lodge	Pend Oreille	17010106	Elk
	10050008	Battle		17010201	Upper Clark Fork
	10050009	Peoples		17010202	Flint-Rock
	10050010	Cottonwood		17010203	Blackfoot
	10050011	Whitewater		17010204	Middle Clark Fork
	10050012	Lower Milk		17010205	Bitterroot
	10050013	Frenchman		17010206	North Fork Flathead
	10050014	Beaver		17010207	Middle Fork Flathead
	10050015	Rock		17010208	Flathead Lake
	10050016	Porcupine		17010209	South Fork Flathead
Missouri-Poplar	10060001	Prairie Elk-Wolf		17010210	Stillwater
	10060002	Redwater		17010211	Swan
	10060003	Poplar		17010212	Lower Flathead
				17010213	Lower Clark Fork

Upper South Saskatchewan River Sub-Major Basin

Included with Missouri River Basin
for Administrative Purposes



USGS HUC

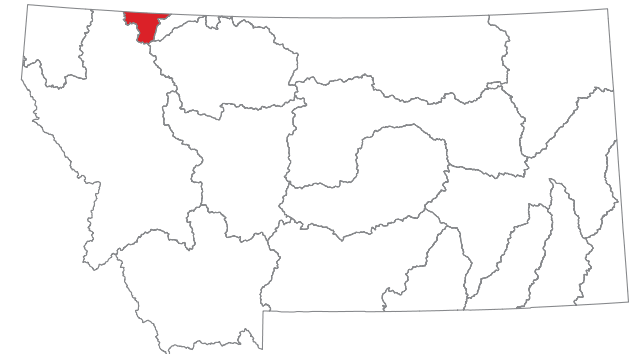
09040001

09040002

HUC NAME

St. Marys

Belly



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 09040001 St. Marys

Watershed: Upper South Saskatchewan River

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Cut Bank - Two Medicine	MT40T002_010	DIVIDE CREEK, headwaters to mouth (Saint Mary River)	4C	10.55	MILES	A-1	N	F	X	X	Habitat Alterations	Channelization
											Other anthropogenic substrate alterations	Highways, Roads, Bridges, Infrastructure (New Construction) Site Clearance (Land Development or Redevelopment)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

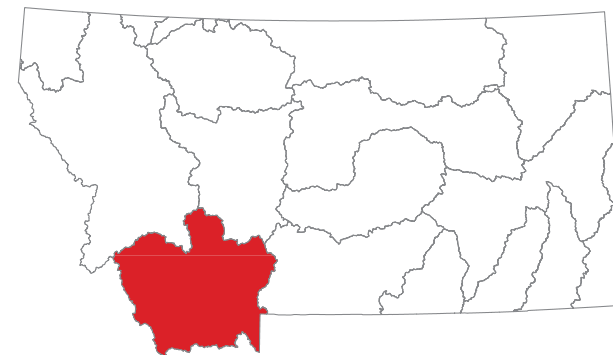
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Missouri Headwaters Sub-Major Basin

Upper Missouri River Basin

USGS HUC	HUC NAME
10020001	Red Rock
10020002	Beaverhead
10020003	Ruby
10020004	Big Hole
10020005	Jefferson
10020006	Boulder
10020008	Gallatin
10020007	Madison



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10020001 Red Rock

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Red Rock	MT41A001_010	RED ROCK RIVER, Lima Dam to Clark Canyon Reservoir	5	51.81	MILES	B-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Lead Physical substrate habitat alterations Sedimentation/Siltation Temperature Zinc	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat
Red Rock	MT41A001_020	RED ROCK RIVER, Lower Red Rock Lake to Lima Dam	5	43.82	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Grazing in Riparian or Shoreline Zones
Red Rock	MT41A002_010	CLARK CANYON RESERVOIR	4C	4922.1	ACRES	B-1	N	F	F	X	Flow Regime Modification	Crop Production (Irrigated) Drought-related Impacts
Red Rock	MT41A003_010	MEDICINE LODGE CREEK, headwaters to mouth (Horse Prairie Creek)	5	34.64	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Phosphorus, Total Sedimentation/Siltation Temperature	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Red Rock	MT41A003_020	MUDDY CREEK, confluence of Sourdough and Wilson Creek to mouth (Big Sheep Creek), T14S R10W S10	5	11.08	MILES	B-1	N	F	F	I	Turbidity	Agriculture Streambank Modifications/destabilization
Red Rock	MT41A003_090	HORSE PRAIRIE CREEK, headwaters to mouth (Clark Canyon Res)	5	46.67	MILES	B-1	N	F	N	I	Arsenic Cadmium Copper Flow Regime Modification Lead Mercury	Crop Production (Irrigated) Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020001 Red Rock

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Red Rock	MT41A003_090	HORSE PRAIRIE CREEK, headwaters to mouth (Clark Canyon Res)	5	46.67	MILES	B-1	N	F	N	I	Zinc	
Red Rock	MT41A003_100	BLOODY DICK CREEK, headwaters to mouth (Horse Prairie Creek)	5	30.32	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total	Grazing in Riparian or Shoreline Zones
Red Rock	MT41A003_150	SHEEP CREEK, Muddy Creek to mouth (Red Rock River)	5	10.98	MILES	B-1	N	F	F	N	Algae Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Red Rock	MT41A004_010	PRICE CREEK, headwaters to mouth (Red Rock River)	5	10.52	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Water Diversions
Red Rock	MT41A004_030	FISH CREEK, headwaters to mouth (Metzel Creek)	5	7.88	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail
Red Rock	MT41A004_040	CORRAL CREEK, headwaters to mouth (Red Rock Creek)	5	4.29	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail
Red Rock	MT41A004_050	EAST FORK CLOVER CREEK, headwaters to mouth (Clover Creek)	5	5.78	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Red Rock	MT41A004_060	HELL ROARING CREEK, headwaters to mouth (Red Rock River)	4C	10.17	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
Red Rock	MT41A004_070	LONG CREEK, headwaters to mouth (Red Rock River)	5	23.94	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020001 Red Rock

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Red Rock	MT41A004_080	O'DELL CREEK, headwaters to mouth (Lower Red Rock Lake)	5	16.09	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Turbidity	Agriculture Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat
Red Rock	MT41A004_090	PEET CREEK, headwaters to mouth (Red Rock River)	5	10.13	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Animal Feeding Operations (NPS) Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Red Rock	MT41A004_100	TOM CREEK, headwaters to mouth (Upper Red Rock Lake)	5	6.6	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Red Rock	MT41A004_110	RED ROCK CREEK, headwaters to mouth (Upper Red Rock Lake)	5	18.38	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Turbidity	Agriculture Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat
Red Rock	MT41A004_130	JONES CREEK, headwaters to mouth (Winslow Creek)	5	8.33	MILES	B-1	N	F	F	N	Algae Alteration in stream-side or littoral vegetative covers Flow Regime Modification Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Red Rock	MT41A004_140	BEAN CREEK, headwaters to mouth (Red Rock River), T14S R3E S7	5	6.62	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Channelization Grazing in Riparian or Shoreline Zones Water Diversions
Red Rock	MT41A005_020	LOWER RED ROCK LAKE	5	2217.5	ACRES	B-1	N	X	X	X	Flow Regime Modification Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Low Water Crossing Rangeland Grazing

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020001 Red Rock

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Red Rock	MT41A005_020	LOWER RED ROCK LAKE	5	2217.5	ACRES	B-1	N	X	X	X		Upstream Source
Red Rock	MT41A005_030	UPPER RED ROCK LAKE	5	2947	ACRES	B-1	N	X	X	X	Flow Regime Modification Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Rangeland Grazing Upstream Source

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020002 Beaverhead

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Beaverhead	MT41B001_010	BEAVERHEAD RIVER, Clark Canyon Dam to Grasshopper Creek	5	12.32	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total	Agriculture Crop Production (Irrigated) Dam or Impoundment Grazing in Riparian or Shoreline Zones
Beaverhead	MT41B001_020	BEAVERHEAD RIVER, Grasshopper Creek to mouth (Jefferson River)	5	66.04	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation Temperature	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Site Clearance (Land Development or Redevelopment)
Beaverhead	MT41B002_010	GRASSHOPPER CREEK, headwaters to mouth (Beaverhead River)	5	60.18	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Lead Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Mine Tailings Streambank Modifications/destabilization
Beaverhead	MT41B002_020	FARLIN CREEK, headwaters to mouth (Grasshopper Creek), T6S R12W S7	4A	6.1	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Beaverhead	MT41B002_030	BLACKTAIL DEER CREEK, headwaters to mouth (Beaverhead River)	5	42.88	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Sedimentation/Siltation Temperature	Channelization Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related) Livestock (Grazing or Feeding Operations) Water Diversions
Beaverhead	MT41B002_040	EAST FORK BLACKTAIL DEER CREEK, headwaters to mouth (Blacktail Deer Creek)	4C	21.24	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020002 Beaverhead

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Beaverhead	MT41B002_060	WEST FORK BLACKTAIL DEER CREEK, headwaters to mouth (Blacktail Deer Creek)	5	19.07	MILES	B-1	N	N	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Chlorophyll-a Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Mine Tailings
Beaverhead	MT41B002_070	WEST FORK DYCE CREEK, headwaters to mouth (Dyce Creek)	5	3.95	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Placer Mining Silviculture Harvesting
Beaverhead	MT41B002_080	SPRING CREEK, headwaters to mouth (Beaverhead River)	5	15.67	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Flow Regime Modification Iron Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Impacts from Abandoned Mine Lands (Inactive)
Beaverhead	MT41B002_090	RATTLESNAKE CREEK, from the Dillon PWS off-channel well T7S R10W S11 to the mouth (Van Camp Slough)	5	9.52	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Cadmium Copper Flow Regime Modification Lead Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Subsurface (Hardrock) Mining
Beaverhead	MT41B002_091	RATTLESNAKE CREEK, headwaters to Dillon PWS off-channel well, T7S R10W S11	5	17.95	MILES	A-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Cadmium Lead Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Subsurface (Hardrock) Mining

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020002 Beaverhead

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Beaverhead	MT41B002_100	FRENCH CREEK, headwaters to mouth (Rattlesnake Creek)	4A	6.55	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones
Beaverhead	MT41B002_110	CLARK CANYON CREEK, headwaters to mouth (Beaverhead River), T9S R10W S28	5	8.07	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Beaverhead	MT41B002_120	RESERVOIR CREEK, headwaters to mouth (Grasshopper Creek)	5	12.76	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Beaverhead	MT41B002_131	STONE CREEK, Un-named tributary at T6S R7W S34 to Staudaheer Bishop Ditch	5	6.53	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Aluminum Copper Iron Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Crop Production (Crop Land or Dry Land) Surface Mining Unspecified Unpaved Road or Trail
Beaverhead	MT41B002_132	STONE CREEK, Left and Middle Fork to un-named tributary, T6S R7W S34	5	7.07	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Iron Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Turbidity	Agriculture Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related) Highways, Roads, Bridges, Infrastructure (New Construction) Source Unknown Surface Mining
Beaverhead	MT41B002_140	DYCE CREEK, confluence of East and West Forks to Grasshopper Creek	5	4.13	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated)

AqL=Aquatic Life; **Ag**=Agriculture; **DW**=Drinking Water; **Rec**=Primary Contact Recreation

F=Fully Supporting; **T**=Threatened; **N**=Not Fully Supporting; **I**=Insufficient Information; **X**=Not Assessed; **-** = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020002 Beaverhead

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Beaverhead	MT41B002_140	DYCE CREEK, confluence of East and West Forks to Grasshopper Creek	5	4.13	MILES	B-1	N	F	F	N	Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Beaverhead	MT41B002_150	WELLMAN CREEK, headwaters to mouth (Grasshopper Creek)	5	3.02	MILES	B-1	N	X	F	X	Aluminum Cadmium Copper Lead Zinc	Subsurface (Hardrock) Mining
Beaverhead	MT41B002_160	STEEL CREEK, headwaters to mouth (Driscoll Creek), T6S R12W S18	5	3.66	MILES	B-1	N	N	N	I	Alteration in stream-side or littoral vegetative covers Arsenic Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Subsurface (Hardrock) Mining
Beaverhead	MT41B002_170	TAYLOR CREEK, headwaters to mouth (Grasshopper Creek)	5	11.73	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Beaverhead	MT41B002_180	SCUDDER CREEK, headwaters to mouth (Grasshopper Creek), T6S R12W S19	5	5.62	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020003 Ruby

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Ruby	MT41C001_010	RUBY RIVER, Ruby Dam to mouth (Beaverhead River)	5	48.03	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Phosphorus, Total Sedimentation/Siltation Temperature	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Water Diversions
Ruby	MT41C001_020	RUBY RIVER, confluence of East, West, and Middle Forks to Ruby Reservoir	5	41.79	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail
Ruby	MT41C002_010	WISCONSIN CREEK, headwaters to mouth (Ruby River)	5	13.14	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Arsenic Copper Flow Regime Modification Lead Mercury Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Mine Tailings Unspecified Unpaved Road or Trail
Ruby	MT41C002_020	MILL CREEK, headwaters to mouth (Ruby River)	5	21.68	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Unspecified Unpaved Road or Trail
Ruby	MT41C002_030	INDIAN CREEK, headwaters to mouth (Leonard Slough)	4A	12.44	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Channelization Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail
Ruby	MT41C002_040	ALDER GULCH, headwaters to mouth (Ruby River)	5	20.65	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers	Dredge Mining

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020003 Ruby

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Ruby	MT41C002_040	ALDER GULCH, headwaters to mouth (Ruby River)	5	20.65	MILES	B-1	N	F	F	N	Chlorophyll-a	Forest Roads (Road Construction and Use)
											Lead	Grazing in Riparian or Shoreline Zones
											Manganese	Mill Tailings
											Mercury	Mine Tailings
											Nitrogen, Total	Placer Mining
											Physical substrate habitat alterations	
											Sedimentation/Siltation	
Ruby	MT41C002_050	RAMSHORN CREEK, headwaters to mouth (Ruby River)	5	15.2	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers	Channelization
											Flow Regime Modification	Crop Production (Irrigated)
											Lead	Grazing in Riparian or Shoreline Zones
											Phosphorus, Total	Mine Tailings
											Sedimentation/Siltation	Placer Mining
												Unspecified Unpaved Road or Trail
Ruby	MT41C002_060	CURRANT CREEK, headwaters to mouth (Ramshorn Creek), T4S R4W S35	5	3.72	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
											Copper	Mine Tailings
											Lead	Unspecified Unpaved Road or Trail
											Nitrogen, Total	
											Phosphorus, Total	
											Sedimentation/Siltation	
Ruby	MT41C002_090	CALIFORNIA CREEK, headwaters to mouth (Ruby River), T5S R4W S30	5	10.94	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
											Phosphorus, Total	Placer Mining
											Sedimentation/Siltation	
Ruby	MT41C002_100	GARDEN CREEK, headwaters to mouth (Ruby Reservoir)	5	7.72	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
											Nitrogen, Total	Unspecified Unpaved Road or Trail
											Phosphorus, Total	
											Sedimentation/Siltation	
Ruby	MT41C002_110	MORMON CREEK, headwaters to mouth	5	7.86	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020003 Ruby

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Ruby	MT41C002_110	MORMON CREEK, headwaters to mouth (Upper end of Ruby River Reservoir)	5	7.86	MILES	B-1	N	F	F	F	vegetative covers Phosphorus, Total Sedimentation/Siltation	
Ruby	MT41C003_020	COAL CREEK, headwaters to mouth (Middle Fork Ruby River)	4A	9.35	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Ruby	MT41C003_030	COTTONWOOD CREEK, headwaters to mouth (Ruby River)	5	11.15	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Sedimentation/Siltation	Channelization Crop Production (Irrigated) Rangeland Grazing Unspecified Unpaved Road or Trail
Ruby	MT41C003_040	EAST FORK RUBY RIVER, headwaters to mouth (Ruby River)	5	10.3	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Ruby	MT41C003_050	WARM SPRINGS CREEK, headwaters to mouth (Ruby River)	4A	8.48	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail
Ruby	MT41C003_060	SWEETWATER CREEK, headwaters to mouth (Ruby River)	5	24.72	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Crop Production (Irrigated) Rangeland Grazing Unspecified Unpaved Road or Trail
Ruby	MT41C003_080	WEST FORK RUBY RIVER, headwaters to mouth (Ruby River)	4A	7.92	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Rangeland Grazing
Ruby	MT41C003_090	MIDDLE FORK RUBY RIVER, Divide Creek to mouth (Ruby River)	5	11.82	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020003 Ruby

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Ruby	MT41C003_090	MIDDLE FORK RUBY RIVER, Divide Creek to mouth (Ruby River)	5	11.82	MILES	B-1	N	F	F	F	Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	
Ruby	MT41C003_110	POISON CREEK, headwaters to mouth (Ruby River), T11S R3W S18	5	6.2	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Cadmium Lead Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Natural Sources Placer Mining Rangeland Grazing
Ruby	MT41C003_120	BASIN CREEK, headwaters to mouth (Ruby River), T11S R3W S20	5	5.4	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Ruby	MT41C003_130	BURNT CREEK, headwaters to mouth (Ruby River), T10S R3W S21	5	5.62	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Ruby	MT41C003_140	HAWKEYE CREEK, headwaters to mouth (Middle Fork Ruby River)	5	4.23	MILES	B-1	N	F	F	F	Phosphorus, Total	Grazing in Riparian or Shoreline Zones Source Unknown
Ruby	MT41C003_150	SHOVEL CREEK, headwaters to mouth (Cabin Creek)	4A	5.61	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Rangeland Grazing

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Big Hole	MT41D001_010	BIG HOLE RIVER, Divide Creek to mouth (Jefferson River)	5	49.27	MILES	B-1	N	F	N	I	Cadmium	Acid Mine Drainage
											Copper	Crop Production (Irrigated)
											Flow Regime Modification	Dam Construction (Other than Upstream Flood Control Projects)
											Lead	Grazing in Riparian or Shoreline Zones
											Physical substrate habitat alterations	Habitat Modification - other than Hydromodification
											Temperature	Highway/Road/Bridge Runoff (Non-construction Related)
											Zinc	Highways, Roads, Bridges, Infrastructure (New Construction)
	Impacts from Abandoned Mine Lands (Inactive)											
	Streambank Modifications/destabilization											
Middle Big Hole	MT41D001_020	BIG HOLE RIVER, Pintlar Creek to Divide Creek	4A	44.39	MILES	A-1	N	F	N	I	Alteration in stream-side or littoral vegetative covers	Acid Mine Drainage
											Copper	Agriculture
											Flow Regime Modification	Crop Production (Irrigated)
											Lead	Grazing in Riparian or Shoreline Zones
											Physical substrate habitat alterations	Highways, Roads, Bridges, Infrastructure (New Construction)
											Sedimentation/Siltation	Impacts from Abandoned Mine Lands (Inactive)
											Temperature	Rangeland Grazing
	Unspecified Unpaved Road or Trail											
Upper Big Hole	MT41D001_030	BIG HOLE RIVER, headwaters to Pintlar Creek	4A	65.16	MILES	A-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers	Agriculture
											Flow Regime Modification	Crop Production (Crop Land or Dry Land)
											Sedimentation/Siltation	Crop Production (Irrigated)
											Temperature	Grazing in Riparian or Shoreline Zones
												Highways, Roads, Bridges, Infrastructure (New Construction)
												Loss of Riparian Habitat
												Rangeland Grazing
	Silviculture Activities											
	Unspecified Unpaved Road or Trail											
Lower Big Hole	MT41D002_010	TRAPPER CREEK, headwaters to mouth (Big Hole River)	4A	18.98	MILES	B-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers	Acid Mine Drainage

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *		Source Name *
AqL	Ag	DW	Rec										
Lower Big Hole	MT41D002_010	TRAPPER CREEK, headwaters to mouth (Big Hole River)	4A	18.98	MILES	B-1	N	F	N	X	Arsenic	Channelization	
											Cadmium	Crop Production (Irrigated)	
											Copper	Highways, Roads, Bridges, Infrastructure (New Construction)	
											Flow Regime Modification	Impacts from Abandoned Mine Lands (Inactive)	
											Lead	Impacts from Hydrostructure Flow Regulation/modification	
											Physical substrate habitat alterations	Mine Tailings	
											Sedimentation/Siltation	Unspecified Unpaved Road or Trail	
											Zinc		
Lower Big Hole	MT41D002_020	CAMP CREEK, headwaters to mouth (Big Hole River)	5	15.6	MILES	B-1	N	N	N	N	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated)	
											Arsenic	Grazing in Riparian or Shoreline Zones	
											Flow Regime Modification	Impacts from Abandoned Mine Lands (Inactive)	
											Nitrogen, Total	Unspecified Unpaved Road or Trail	
											Phosphorus, Total		
											Sedimentation/Siltation		
Lower Big Hole	MT41D002_030	CANYON CREEK, headwaters to mouth (Big Hole River)	4C	18.41	MILES	B-1	N	X	X	X	Flow Regime Modification	Agriculture	
												Crop Production (Irrigated)	
Lower Big Hole	MT41D002_040	DIVIDE CREEK, headwaters to mouth (Big Hole River)	4A	13.99	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers	Agriculture	
											Flow Regime Modification	Water Diversions	
											Nitrogen, Total		
											Phosphorus, Total		
											Sedimentation/Siltation		
											Temperature		
											Total Kjeldahl Nitrogen (TKN)		
Lower Big Hole	MT41D002_050	MOOSE CREEK, headwaters to mouth (Big Hole River at Maiden Rock)	4A	16.99	MILES	B-1	N	X	X	X	Flow Regime Modification	Crop Production (Crop Land or Dry Land)	
											Sedimentation/Siltation	Crop Production (Irrigated)	
												Grazing in Riparian or Shoreline Zones	
												Silviculture Activities	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Big Hole	MT41D002_050	MOOSE CREEK, headwaters to mouth (Big Hole River at Maiden Rock)	4A	16.99	MILES	B-1	N	X	X	X		Unspecified Unpaved Road or Trail
Lower Big Hole	MT41D002_060	GROSE CREEK, headwaters to mouth (Big Hole River)	4A	4.93	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Rangeland Grazing Unspecified Unpaved Road or Trail
Lower Big Hole	MT41D002_070	SASSMAN GULCH, headwaters to the end of the stream reach in T4S R9W S9	5	3.89	MILES	B-1	N	F	F	F	Arsenic	Impacts from Abandoned Mine Lands (Inactive)
Lower Big Hole	MT41D002_090	BIRCH CREEK, headwaters to National Forest Boundary	4A	13.91	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification Streambank Modifications/destabilization
Lower Big Hole	MT41D002_100	BIRCH CREEK, National Forest Boundary to mouth (Big Hole River)	4A	10.67	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Other anthropogenic substrate alterations Physical substrate habitat alterations Sedimentation/Siltation	Channelization Crop Production (Irrigated) Dam or Impoundment Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification Unspecified Unpaved Road or Trail
Lower Big Hole	MT41D002_110	WILLOW CREEK, headwaters to mouth (Big Hole River), T4S R8W S1	4C	23.39	MILES	B-1	N	X	X	X	Flow Regime Modification	Agriculture Crop Production (Irrigated)
Lower Big Hole	MT41D002_120	WICKIUP CREEK, headwaters to mouth (Camp Creek), T2S R8W S1	5	4.09	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Copper Lead Mercury Phosphorus, Total Sediment	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Subsurface (Hardrock) Mining

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Lower Big Hole	MT41D002_140	SOAP CREEK, headwaters to mouth (Big Hole River), T2S R9W S10	4A	8.24	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail
Middle Big Hole	MT41D002_150	CHARCOAL CREEK, headwaters to mouth (Big Hole River)	5	4.06	MILES	A-1	N	F	F	F	Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail
Lower Big Hole	MT41D002_160	ROCHESTER CREEK, headwaters to mouth (Big Hole River), T3S R6W S29	4A	14.92	MILES	B-1	N	F	N	F	Arsenic Copper Lead Mercury Physical substrate habitat alterations Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Subsurface (Hardrock) Mining
Lower Big Hole	MT41D002_180	LOST CREEK, headwaters to mouth (Lost Creek Canal/Ditch), T4S R9W S15	4A	7.84	MILES	B-1	N	N	N	F	Alteration in stream-side or littoral vegetative covers Arsenic Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Mine Tailings Rangeland Grazing Unspecified Unpaved Road or Trail
Middle Big Hole	MT41D003_020	JERRY CREEK, headwaters to mouth (Big Hole River)	5	12.69	MILES	A-1	N	F	N	N	Algae Alteration in stream-side or littoral vegetative covers Copper Flow Regime Modification Lead Physical substrate habitat alterations Sedimentation/Siltation	Acid Mine Drainage Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Rangeland Grazing Silviculture Activities

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Middle Big Hole	MT41D003_020	JERRY CREEK, headwaters to mouth (Big Hole River)	5	12.69	MILES	A-1	N	F	N	N		Site Clearance (Land Development or Redevelopment) Unspecified Unpaved Road or Trail
Middle Big Hole	MT41D003_030	DELANO CREEK, headwaters to mouth (Jerry Creek)	4A	2.32	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Middle Big Hole	MT41D003_040	DEEP CREEK, headwaters to mouth (Big Hole River)	4A	9.21	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Rangeland Grazing Streambank Modifications/destabilization
Middle Big Hole	MT41D003_050	FRENCH CREEK, headwaters to mouth (Deep Creek)	4A	10.08	MILES	A-1	N	X	N	X	Arsenic Copper Sedimentation/Siltation	Acid Mine Drainage Atmospheric Deposition - Toxics Contaminated Sediments Impacts from Abandoned Mine Lands (Inactive)
Middle Big Hole	MT41D003_070	CALIFORNIA CREEK, headwaters to mouth (French Creek-Deep Creek)	5	8.28	MILES	B-1	N	N	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Copper Flow Regime Modification Iron Other anthropogenic substrate alterations Physical substrate habitat alterations Sedimentation/Siltation Turbidity	Agriculture Atmospheric Deposition - Toxics Contaminated Sediments Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Natural Sources Placer Mining Rangeland Grazing Silviculture Activities Unspecified Unpaved Road or Trail
Middle Big Hole	MT41D003_080	OREGON CREEK, headwaters to mouth (California Creek-French Creek-Deep Creek)	5	3.09	MILES	A-1	N	N	N	F	Alteration in stream-side or littoral vegetative covers Arsenic Copper	Acid Mine Drainage Agriculture Atmospheric Deposition - Toxics

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Middle Big Hole	MT41D003_080	OREGON CREEK, headwaters to mouth (California Creek-French Creek-Deep Creek)	5	3.09	MILES	A-1	N	N	N	F	Lead	Channelization
											Other anthropogenic substrate alterations	Crop Production (Irrigated)
											Physical substrate habitat alterations	Dredge Mining
											Sedimentation/Siltation	Erosion from Derelict Land (Barren Land)
												Forest Roads (Road Construction and Use)
												Highways, Roads, Bridges, Infrastructure (New Construction)
												Impacts from Abandoned Mine Lands (Inactive)
												Impacts from Hydrostructure Flow Regulation/modification
												Mine Tailings
												Natural Sources
Middle Big Hole	MT41D003_090	SIXMILE CREEK, headwaters to mouth (California Creek)	4A	4.4	MILES	A-1	N	F	F	F	Physical substrate habitat alterations	Rangeland Grazing
											Sedimentation/Siltation	Silviculture Activities
												Streambank Modifications/destabilization
												Unspecified Unpaved Road or Trail
Middle Big Hole	MT41D003_110	SEVENMILE CREEK, headwaters to mouth (Deep Creek)	4A	6.43	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Natural Sources
											Sedimentation/Siltation	Rangeland Grazing
												Streambank Modifications/destabilization
Middle Big Hole	MT41D003_120	TWELVEMILE CREEK, headwaters to mouth (Deep Creek)	5	9.09	MILES	A-1	N	F	F	F	Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
												Silviculture Harvesting
Middle Big Hole	MT41D003_130	CORRAL CREEK, headwaters to mouth (Deep Creek)	4A	5.2	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Natural Sources
											Physical substrate habitat alterations	Rangeland Grazing
											Sedimentation/Siltation	Silviculture Activities
Middle Big Hole	MT41D003_160	FISHTRAP CREEK, confluence of West & Middle Forks to mouth (Big Hole River)	5	5.85	MILES	A-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
												Water Diversions

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Middle Big Hole	MT41D003_160	FISHTRAP CREEK, confluence of West & Middle Forks to mouth (Big Hole River)	5	5.85	MILES	A-1	N	F	F	I	Flow Regime Modification Phosphorus, Total Sedimentation/Siltation	
Middle Big Hole	MT41D003_170	PINTLAR CREEK, headwaters to mouth (Big Hole River)	5	21.25	MILES	A-1	N	F	F	X	Flow Regime Modification Physical substrate habitat alterations Temperature	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Natural Sources
Middle Big Hole	MT41D003_200	WISE RIVER, headwaters to mouth (Big Hole River)	4A	26.67	MILES	A-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Cadmium Copper Flow Regime Modification Lead Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Channelization Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Rangeland Grazing Unspecified Unpaved Road or Trail
Middle Big Hole	MT41D003_210	PATTENGAIL CREEK, headwaters to mouth (Wise River)	4A	20.04	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations Sedimentation/Siltation	Dam Construction (Other than Upstream Flood Control Projects) Highways, Roads, Bridges, Infrastructure (New Construction)
Middle Big Hole	MT41D003_220	ELKHORN CREEK, headwaters to mouth (Jacobson Creek)	4A	7.52	MILES	A-1	N	F	F	F	Arsenic Cadmium Copper Lead Sedimentation/Siltation	Impacts from Abandoned Mine Lands (Inactive) Mill Tailings Mine Tailings

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Middle Big Hole	MT41D003_220	ELKHORN CREEK, headwaters to mouth (Jacobson Creek)	4A	7.52	MILES	A-1	N	F	F	F	Zinc	
Middle Big Hole	MT41D003_230	GOLD CREEK, headwaters to mouth (Wise River)	5	4.92	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
North Fork Big Hole	MT41D004_010	NORTH FORK BIG HOLE RIVER, headwaters to mouth (Big Hole River)	4A	25.92	MILES	A-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related) Loss of Riparian Habitat Silviculture Activities
North Fork Big Hole	MT41D004_020	MUSSIGBROD CREEK, headwaters to mouth (North Fork Big Hole River)	5	14.62	MILES	A-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Lead Other anthropogenic substrate alterations Physical substrate habitat alterations Sedimentation/Siltation	Acid Mine Drainage Agriculture Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Managed Pasture Grazing Natural Sources Rangeland Grazing
North Fork Big Hole	MT41D004_030	JOHNSON CREEK, headwaters to mouth (North Fork Big Hole River)	5	15.7	MILES	A-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Silviculture Harvesting
North Fork Big Hole	MT41D004_040	SCHULTZ CREEK, headwaters to mouth (Johnson Creek)	5	3.28	MILES	A-1	N	F	F	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
North Fork Big Hole	MT41D004_040	SCHULTZ CREEK, headwaters to mouth (Johnson Creek)	5	3.28	MILES	A-1	N	F	F	F		Silviculture Harvesting
North Fork Big Hole	MT41D004_060	TIE CREEK, headwaters to mouth (North Fork Big Hole River)	5	16.49	MILES	A-1	N	F	F	F	Nitrogen, Total	Rangeland Grazing
											Physical substrate habitat alterations	Silviculture Activities
											Sedimentation/Siltation	Unspecified Unpaved Road or Trail
North Fork Big Hole	MT41D004_070	TRAIL CREEK, headwaters to Joseph Creek	4A	13.07	MILES	A-1	N	F	F	F	Physical substrate habitat alterations	Grazing in Riparian or Shoreline Zones
											Sedimentation/Siltation	Impacts from Abandoned Mine Lands (Inactive)
												Silviculture Activities
												Streambank Modifications/destabilization
												Unspecified Unpaved Road or Trail
North Fork Big Hole	MT41D004_080	TRAIL CREEK, Joseph Creek to mouth (North Fork Big Hole River)	4A	10.88	MILES	A-1	N	F	F	F	Physical substrate habitat alterations	Grazing in Riparian or Shoreline Zones
											Sedimentation/Siltation	Impacts from Abandoned Mine Lands (Inactive)
												Silviculture Activities
												Streambank Modifications/destabilization
												Unspecified Unpaved Road or Trail
North Fork Big Hole	MT41D004_090	JOSEPH CREEK, headwaters to mouth (Trail Creek)	5	7.29	MILES	A-1	N	F	N	F	Copper	Channelization
											Lead	Highways, Roads, Bridges, Infrastructure (New Construction)
											Physical substrate habitat alterations	Impacts from Abandoned Mine Lands (Inactive)
											Sedimentation/Siltation	Silviculture Harvesting
North Fork Big Hole	MT41D004_100	RUBY CREEK, headwaters to mouth (North Fork Big Hole River)	4A	18.8	MILES	A-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated)
											Flow Regime Modification	Dredge Mining
											Physical substrate habitat alterations	Forest Roads (Road Construction and Use)
											Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
												Impacts from Hydrostructure Flow Regulation/modification
												Loss of Riparian Habitat
												Rangeland Grazing
												Silviculture Activities
												Unspecified Unpaved Road or Trail

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Upper Big Hole	MT41D004_110	SWAMP CREEK, headwaters to mouth (Big Hole River)	5	25	MILES	A-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat
Upper Big Hole	MT41D004_120	ROCK CREEK, headwaters to mouth (Big Hole River)	5	25.62	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat
Upper Big Hole	MT41D004_140	MINER CREEK, headwaters to mouth (Big Hole River)	4A	21.88	MILES	A-1	N	I	I	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones
Upper Big Hole	MT41D004_150	GOVERNOR CREEK, headwaters to mouth (Warm Springs Creek)	5	19	MILES	A-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Copper Flow Regime Modification Other anthropogenic substrate alterations Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Habitat Modification - other than Hydromodification Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Rangeland Grazing Unspecified Unpaved Road or Trail
Upper Big Hole	MT41D004_160	PINE CREEK, headwaters to mouth (Andrus Creek)	5	5.37	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Rangeland Grazing
Upper Big Hole	MT41D004_170	FOX CREEK, headwaters to mouth (Governor Creek)	5	6.85	MILES	A-1	N	F	F	F	Phosphorus, Total	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Upper Big Hole	MT41D004_170	FOX CREEK, headwaters to mouth (Governor Creek)	5	6.85	MILES	A-1	N	F	F	F	Sedimentation/Siltation	
Upper Big Hole	MT41D004_180	WARM SPRINGS CREEK, headwaters to mouth (Big Hole River)	5	20	MILES	A-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat
Upper Big Hole	MT41D004_190	STEEL CREEK, headwaters to mouth (Big Hole River)	5	16.69	MILES	A-1	N	F	N	I	Alteration in stream-side or littoral vegetative covers Cadmium Copper Flow Regime Modification Nitrogen, Total Other anthropogenic substrate alterations Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation	Acid Mine Drainage Agriculture Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Habitat Modification - other than Hydromodification Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Rangeland Grazing Rural (Residential Areas) Unspecified Unpaved Road or Trail
Upper Big Hole	MT41D004_200	FRANCIS CREEK, headwaters to mouth (Steel Creek)	4A	8.81	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Upper Big Hole	MT41D004_210	McVEY CREEK, headwaters to mouth (Big Hole River)	5	9.48	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020004 Big Hole

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Upper Big Hole	MT41D004_220	DOOLITTLE CREEK, headwaters to mouth (Big Hole River)	4A	5.59	MILES	A-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Highways, Roads, Bridges, Infrastructure (New Construction)
Middle Big Hole	MT41D004_230	SAWLOG CREEK, headwaters to mouth (Big Hole River)	5	4.79	MILES	A-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020005 Jefferson

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Upper Jefferson	MT41G001_011	JEFFERSON RIVER, headwaters to confluence of Jefferson Slough	5	40.9	MILES	B-1	N	F	F	X	Flow Regime Modification	Crop Production (Irrigated)
											Iron	Dam or Impoundment
											Lead	Impacts from Abandoned Mine Lands (Inactive)
											Physical substrate habitat alterations	Impacts from Hydrostructure Flow Regulation/modification
											Sedimentation/Siltation	Loss of Riparian Habitat
											Temperature	Natural Sources
Lower Jefferson	MT41G001_012	JEFFERSON RIVER, confluence of Jefferson Slough to mouth (Missouri River)	5	33.5	MILES	B-1	N	F	F	X		Streambank Modifications/destabilization
											Copper	Crop Production (Irrigated)
											Flow Regime Modification	Dam or Impoundment
											Lead	Impacts from Abandoned Mine Lands (Inactive)
											Physical substrate habitat alterations	Impacts from Hydrostructure Flow Regulation/modification
											Sedimentation/Siltation	Loss of Riparian Habitat
Temperature	Natural Sources											
Upper Jefferson	MT41G002_010	BIG PIPESTONE CREEK, headwaters to mouth (Jefferson Slough), T1N R4W S11	5	22.46	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers	Agriculture
											Arsenic	Channelization
											Cause Unknown	Crop Production (Irrigated)
											Nitrogen, Total	Dam or Impoundment
											Other anthropogenic substrate alterations	Forest Roads (Road Construction and Use)
											Phosphorus, Total	Grazing in Riparian or Shoreline Zones
											Physical substrate habitat alterations	Habitat Modification - other than Hydromodification
											Sedimentation/Siltation	Highway/Road/Bridge Runoff (Non-construction Related)
											Temperature	Highways, Roads, Bridges, Infrastructure (New Construction)
											Total Suspended Solids (TSS)	Loss of Riparian Habitat
												Municipal Point Source Discharges
	Sediment Resuspension (Clean Sediment)											
	Source Unknown											

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020005 Jefferson

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Upper Jefferson	MT41G002_010	BIG PIPESTONE CREEK, headwaters to mouth (Jefferson Slough), T1N R4W S11	5	22.46	MILES	B-1	N	F	N	N		Streambank Modifications/destabilization Unspecified Unpaved Road or Trail
Upper Jefferson	MT41G002_020	HALFWAY CREEK, headwaters to mouth (Big Pipestone Creek-Jefferson River)	5	7.9	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Unspecified Unpaved Road or Trail
Upper Jefferson	MT41G002_030	HELLS CANYON CREEK, headwaters to mouth (Jefferson River)	4A	13.28	MILES	B-1	N	F	F	X	Flow Regime Modification Physical substrate habitat alterations Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Natural Sources Silviculture Activities Unspecified Unpaved Road or Trail Water Diversions
Upper Jefferson	MT41G002_040	LITTLE PIPESTONE CREEK, headwaters to mouth (Big Pipestone Creek)	5	16.86	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Channelization Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related)
Lower Jefferson	MT41G002_050	NORTH WILLOW CREEK, headwaters to mouth (Willow Creek)	5	17.62	MILES	B-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Lead Mercury Physical substrate habitat alterations	Agriculture Channelization Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Natural Sources Subsurface (Hardrock) Mining
Lower Jefferson	MT41G002_060	SOUTH BOULDER RIVER, headwaters to mouth (Jefferson River)	5	23.32	MILES	B-1	N	F	F	X	Arsenic Copper Flow Regime Modification Lead Mercury	Acid Mine Drainage Contaminated Sediments Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Mine Tailings

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020005 Jefferson

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Lower Jefferson	MT41G002_060	SOUTH BOULDER RIVER, headwaters to mouth (Jefferson River)	5	23.32	MILES	B-1	N	F	F	X	Phosphorus, Total	
Lower Jefferson	MT41G002_080	WILLOW CREEK, North and South Fork confluence to mouth (Jefferson River)	5	15.28	MILES	B-1	N	F	F	X	Flow Regime Modification Temperature Zinc	Acid Mine Drainage Crop Production (Irrigated) Impacts from Abandoned Mine Lands (Inactive) Water Diversions
Lower Jefferson	MT41G002_090	NORWEGIAN CREEK, headwaters to mouth (Willow Creek Reservoir)	5	10.82	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Arsenic Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Animal Feeding Operations (NPS) Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)
Upper Jefferson	MT41G002_100	FISH CREEK, headwaters to mouth (Jefferson Canal), T1S R5W S12	4A	19.87	MILES	B-1	N	F	I	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Water Diversions
Upper Jefferson	MT41G002_110	CHERRY CREEK, headwaters to mouth (Jefferson River)	4A	6.88	MILES	B-1	N	F	I	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Water Diversions
Lower Jefferson	MT41G002_130	SOUTH WILLOW CREEK, headwaters to mouth (Willow Creek)	5	16.2	MILES	B-1	N	F	F	N	Algae Alteration in stream-side or littoral vegetative covers Flow Regime Modification Physical substrate habitat alterations Sedimentation/Siltation Zinc	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related) Natural Sources
Upper Jefferson	MT41G002_140	LITTLE WHITETAIL CREEK, Whitetail Reservoir to mouth (Whitetail Deer Creek)	4A	13.7	MILES	B-1	N	X	I	X	Aluminum	Subsurface (Hardrock) Mining

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020005 Jefferson

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Upper Jefferson	MT41G002_140	LITTLE WHITETAIL CREEK, Whitetail Reservoir to mouth (Whitetail Deer Creek)	4A	13.7	MILES	B-1	N	X	I	X	Copper Lead	
Upper Jefferson	MT41G002_141	WHITETAIL DEER CREEK, headwaters to mouth (Jefferson Slough)	5	27.13	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Aluminum Ammonia, Un-ionized Chlorophyll-a Flow Regime Modification Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Rangeland Grazing Subsurface (Hardrock) Mining Upstream Source Water Diversions
Lower Jefferson	MT41G002_150	CHARCOAL CREEK, headwaters to mouth (Pony Creek)	5	2.72	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail
Upper Jefferson	MT41G002_160	FITZ CREEK, headwaters to mouth (Whitetail Deer Creek)	5	4.71	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Upper Jefferson	MT41G002_170	JEFFERSON SLOUGH, Jefferson River to the mouth (Jefferson River)	4A	18.8	MILES	B-1	N	X	N	X	Arsenic Cadmium Copper Zinc	Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020006 Boulder

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Boulder - Elkhorn	MT41E001_010	BOULDER RIVER, headwaters to Basin Creek	4A	24.38	MILES	B-1	N	F	F	F	Copper Lead	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive) Mill Tailings Mine Tailings
Boulder - Elkhorn	MT41E001_021	BOULDER RIVER, Basin Creek to Town of Boulder	4A	9.28	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Lead Zinc	Acid Mine Drainage Channelization Habitat Modification - other than Hydromodification Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive) Mill Tailings Mine Tailings
Boulder - Elkhorn	MT41E001_022	BOULDER RIVER, Town of Boulder to Cottonwood Creek	4A	35.85	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Flow Regime Modification Iron Lead Sedimentation/Siltation Temperature Zinc	Acid Mine Drainage Contaminated Sediments Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Habitat Modification - other than Hydromodification Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat
Boulder - Elkhorn	MT41E001_030	BOULDER RIVER, Cottonwood Creek to the mouth (Jefferson Slough), T1N R3W S2	4A	14.12	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Flow Regime Modification Iron	Acid Mine Drainage Contaminated Sediments Crop Production (Irrigated) Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Highways, Roads, Bridges, Infrastructure (New Construction)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020006 Boulder

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *		Source Name *
AqL	Ag	DW	Rec										
Boulder - Elkhorn	MT41E001_030	BOULDER RIVER, Cottonwood Creek to the mouth (Jefferson Slough), T1N R3W S2	4A	14.12	MILES	B-1	N	X	N	X	Lead	Impacts from Abandoned Mine Lands (Inactive)	
											Sedimentation/Siltation	Impacts from Hydrostructure Flow Regulation/modification	
											Temperature	Mill Tailings	
											Zinc	Mine Tailings	
Boulder - Elkhorn	MT41E002_010	UNCLE SAM GULCH, headwaters to mouth (Cataract Creek)	4A	2.89	MILES	B-1	N	X	N	N	Alteration in stream-side or littoral vegetative covers	Acid Mine Drainage	
											Aluminum	Agriculture	
											Arsenic	Forest Roads (Road Construction and Use)	
											Cadmium	Habitat Modification - other than Hydromodification	
											Copper	Impacts from Abandoned Mine Lands (Inactive)	
											Flow Regime Modification	Silviculture Activities	
											Lead	Subsurface (Hardrock) Mining	
											Nitrogen, Nitrate		
											Sedimentation/Siltation		
											Turbidity		
											Zinc		
Boulder - Elkhorn	MT41E002_020	CATARACT CREEK, headwaters to mouth (Boulder River)	4A	11.72	MILES	B-1	N	X	N	F	Aluminum	Acid Mine Drainage	
											Arsenic	Contaminated Sediments	
											Cadmium	Forest Roads (Road Construction and Use)	
											Copper	Impacts from Abandoned Mine Lands (Inactive)	
											Lead	Loss of Riparian Habitat	
											Sedimentation/Siltation	Mine Tailings	
											Zinc	Rangeland Grazing	
												Silviculture Activities	
												Silviculture Harvesting	
Boulder - Elkhorn	MT41E002_030	BASIN CREEK, headwaters to mouth (Boulder River)	4A	16.7	MILES	A-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers	Acid Mine Drainage	
											Aluminum	Contaminated Sediments	
											Arsenic	Forest Roads (Road Construction and Use)	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020006 Boulder

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *	
AqL	Ag	DW	Rec										
Boulder - Elkhorn	MT41E002_030	BASIN CREEK, headwaters to mouth (Boulder River)	4A	16.7	MILES	A-1	N	X	N	X	Cadmium	Impacts from Abandoned Mine Lands (Inactive)	
											Copper	Loss of Riparian Habitat	
											Lead	Mine Tailings	
											Sedimentation/Siltation	Rangeland Grazing	
											Zinc	Silviculture Activities	
	Silviculture Harvesting												
Boulder - Elkhorn	MT41E002_040	HIGH ORE CREEK, headwaters to mouth (Boulder River)	4A	6.65	MILES	B-1	N	X	N	F	Alteration in stream-side or littoral vegetative covers	Acid Mine Drainage	
											Arsenic	Channelization	
											Cadmium	Contaminated Sediments	
											Copper	Forest Roads (Road Construction and Use)	
											Lead	Highways, Roads, Bridges, Infrastructure (New Construction)	
											Sedimentation/Siltation	Impacts from Abandoned Mine Lands (Inactive)	
											Temperature	Loss of Riparian Habitat	
											Total Suspended Solids (TSS)	Mine Tailings	
Zinc	Rangeland Grazing												
	Silviculture Activities												
Boulder - Elkhorn	MT41E002_050	LOWLAND CREEK, headwaters to mouth (Boulder River)	4A	14.25	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Channelization	
											Aluminum	Dredge Mining	
											Copper	Impacts from Abandoned Mine Lands (Inactive)	
											Lead	Streambank Modifications/destabilization	
											Physical substrate habitat alterations		
Boulder - Elkhorn	MT41E002_061	ELKHORN CREEK, headwaters to Wood Gulch	4A	8.16	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers	Acid Mine Drainage	
											Arsenic	Channelization	
											Cadmium	Dredge Mining	
											Copper	Grazing in Riparian or Shoreline Zones	
											Flow Regime Modification	Habitat Modification - other than Hydromodification	
	Iron	Highways, Roads, Bridges, Infrastructure (New Construction)											

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020006 Boulder

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Boulder - Elkhorn	MT41E002_061	ELKHORN CREEK, headwaters to Wood Gulch	4A	8.16	MILES	B-1	N	X	N	X	Lead Sedimentation/Siltation	Impacts from Abandoned Mine Lands (Inactive)
Boulder - Elkhorn	MT41E002_062	ELKHORN CREEK, Wood Gulch to the mouth (Unnamed Canal/Ditch), T5N R3W S21	4A	3.56	MILES	B-1	N	X	N	X	Arsenic Cadmium Flow Regime Modification Lead Sedimentation/Siltation	Acid Mine Drainage Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification
Boulder - Elkhorn	MT41E002_070	BISON CREEK, headwaters to mouth (Boulder River)	4A	25.36	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Copper Iron Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Channelization Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related) Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive)
Boulder - Elkhorn	MT41E002_080	LITTLE BOULDER RIVER, headwaters to mouth (Boulder River)	4A	16.3	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Aluminum Copper Iron Lead Physical substrate habitat alterations	Agriculture Dredge Mining Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive)
Boulder - Elkhorn	MT41E002_090	NORTH FORK LITTLE BOULDER RIVER, headwaters to mouth (Little Boulder)	4A	12.09	MILES	B-1	N	X	F	F	Alteration in stream-side or littoral vegetative covers Aluminum Copper Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)
Boulder - Elkhorn	MT41E002_100	MUSKRAT CREEK, headwaters to mouth (Boulder River)	4A	12.83	MILES	B-1	N	X	F	F	Alteration in stream-side or littoral vegetative covers Iron	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020006 Boulder

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Boulder - Elkhorn	MT41E002_100	MUSKRAT CREEK, headwaters to mouth (Boulder River)	4A	12.83	MILES	B-1	N	X	F	F	Sedimentation/Siltation	Rangeland Grazing Silviculture Activities
Boulder - Elkhorn	MT41E002_110	McCARTY CREEK, headwaters to mouth (Boulder River)	4A	6.44	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Fish Passage Barrier Flow Regime Modification Phosphorus, Total Sedimentation/Siltation	Dam or Impoundment Grazing in Riparian or Shoreline Zones Sediment Resuspension (Clean Sediment) Source Unknown Water Diversions
Boulder - Elkhorn	MT41E002_130	NURSERY CREEK, headwaters (east branch) to mouth (Muskrat Creek)	4A	1.4	MILES	B-1	N	X	X	N	Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Natural Sources Watershed Runoff following Forest Fire
Boulder - Elkhorn	MT41E002_140	BIG LIMBER GULCH, headwaters to mouth (Cataract Creek-Boulder River)	4C	2.62	MILES	B-1	N	X	F	X	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations	Channelization Grazing in Riparian or Shoreline Zones
Boulder - Elkhorn	MT41E003_010	JACK CREEK, headwaters to mouth (Basin Creek)	4A	4.52	MILES	B-1	N	X	N	X	Aluminum Arsenic Cadmium Copper Iron Lead Zinc	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020007 Madison

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Madison	MT41F001_010	MADISON RIVER, Madison Dam to mouth (Missouri River)	5	41.31	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Sedimentation/Siltation Temperature	Agriculture Dam Construction (Other than Upstream Flood Control Projects) Dam or Impoundment Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Natural Sources
Madison	MT41F001_020	MADISON RIVER, Quake Lake to Ennis Lake	5	56.02	MILES	B-1	I	X	N	F	Arsenic	Natural Sources
Madison	MT41F001_030	MADISON RIVER, Hebgen Dam to Quake Lake	5	2.29	MILES	B-1	I	X	N	F	Arsenic	Natural Sources
Madison	MT41F002_010	CHERRY CREEK, headwaters to mouth (Madison River)	5	24	MILES	B-1	N	X	X	X	Sedimentation/Siltation Temperature	Agriculture Grazing in Riparian or Shoreline Zones
Madison	MT41F002_020	ELK CREEK, headwaters to mouth (Madison River)	5	18.33	MILES	B-1	N	X	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Iron Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Selenium Temperature Turbidity	Agriculture Animal Feeding Operations (NPS) Crop Production (Irrigated) Crop Production (Non-Irrigated) Grazing in Riparian or Shoreline Zones Habitat Modification - other than Hydromodification Impacts from Abandoned Mine Lands (Inactive) Loss of Riparian Habitat Natural Sources Streambank Modifications/destabilization
Madison	MT41F002_030	HOT SPRINGS CREEK, headwaters to mouth (Madison River)	5	14	MILES	B-1	N	X	F	N	Flow Regime Modification Iron Lead Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Unspecified Unpaved Road or Trail Water Diversions

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020007 Madison

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Madison	MT41F004_010	BLAINE SPRING CREEK, headwaters to mouth (Madison River, T7S R1W S6)	5	4.95	MILES	B-1	N	X	N	N	Algae	Aquaculture (Permitted)
											Arsenic	Grazing in Riparian or Shoreline Zones
											Flow Regime Modification	Natural Sources
											Nitrogen, Total	Streambank Modifications/destabilization
											Sedimentation/Siltation	Water Diversions
Madison	MT41F004_020	O'DELL SPRING CREEK, headwaters to mouth (Madison River)	5	13.194	MILES	B-1	N	X	N	N	Alteration in stream-side or littoral vegetative covers	Agriculture
											Arsenic	Channelization
											Nitrogen, Total	Crop Production (Irrigated)
											Other anthropogenic substrate alterations	Grazing in Riparian or Shoreline Zones
											Physical substrate habitat alterations	Habitat Modification - other than Hydromodification
												Natural Sources
												On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
Madison	MT41F004_021	BEAR CREEK, headwaters to mouth (O'Dell Spring Creek)	5	27.3	MILES	B-1	N	X	X	X	Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Madison	MT41F004_040	INDIAN CREEK, Lee Metcalf Wilderness boundary to mouth (Madison River)	4C	6.34	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers	Agriculture
											Flow Regime Modification	Crop Production (Irrigated)
												Impacts from Hydrostructure Flow Regulation/modification Unspecified Unpaved Road or Trail
Madison	MT41F004_050	JACK CREEK, headwaters to mouth (Madison River, T5S R1W S23)	4C	15.18	MILES	B-1	N	X	X	F	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated)
											Flow Regime Modification	Grazing in Riparian or Shoreline Zones
												Streambank Modifications/destabilization
Madison	MT41F004_060	NORTH MEADOW CREEK, headwaters to mouth (Ennis Lake)	5	18.53	MILES	B-1	N	X	F	F	Flow Regime Modification	Channelization
											Sedimentation/Siltation	Crop Production (Irrigated)
												Grazing in Riparian or Shoreline Zones
												Rural (Residential Areas)
												Streambank Modifications/destabilization Unspecified Unpaved Road or Trail

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020007 Madison

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Madison	MT41F004_070	SOUTH MEADOW CREEK, headwaters to mouth (Ennis Lake)	5	12.98	MILES	B-1	N	X	F	N	Chlorophyll-a Copper Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)
Madison	MT41F004_080	RUBY CREEK, headwaters to mouth (Madison River)	5	15.91	MILES	B-1	N	X	X	X	Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification Unspecified Unpaved Road or Trail
Madison	MT41F004_100	WEST FORK MADISON RIVER, headwaters to mouth (Madison River)	5	39.41	MILES	B-1	N	F	F	F	Temperature	Agriculture Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification Water Diversions
Madison	MT41F004_130	MOORE CREEK, springs to mouth (Fletcher Channel), T5S R1W S15	5	15.83	MILES	B-1	N	X	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Escherichia coli (E. Coli) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Loss of Riparian Habitat Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Rural (Residential Areas) Streambank Modifications/destabilization Transfer of Water from an Outside Watershed
Madison	MT41F004_140	ANTELOPE CREEK, headwaters to mouth (Cliff Lake)	5	9.48	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Agriculture Channelization Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Unspecified Unpaved Road or Trail

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020007 Madison

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use			Cause Name *			Source Name *
AqL	Ag	DW	Rec										
Madison	MT41F004_140	ANTELOPE CREEK, headwaters to mouth (Cliff Lake)	5	9.48	MILES	B-1	N	X	X	X			Water Diversions
Madison	MT41F004_150	BUFORD CREEK, headwaters to confluence with West Fork Madison River	5	4.36	MILES	B-1	I	X	N	X	Arsenic		Natural Sources
Madison	MT41F004_160	WIGWAM CREEK, headwaters to mouth (Madison River)	5	11.9	MILES	B-1	N	X	X	X	Sedimentation/Siltation		Grazing in Riparian or Shoreline Zones
Madison	MT41F005_030	ENNIS LAKE	5	3757.8	ACRES	B-1	N	X	N	X	Arsenic		Habitat Modification - other than Hydromodification
											Flow Regime Modification		Impacts from Abandoned Mine Lands (Inactive)
											Other anthropogenic substrate alterations		Impacts from Hydrostructure Flow Regulation/modification
											Physical substrate habitat alterations		Natural Sources
Madison	MT41F006_020	RED CANYON CREEK, headwaters to mouth (Hebgen Lake)	5	6.27	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers		Grazing in Riparian or Shoreline Zones
											Flow Regime Modification		Natural Sources
											Sedimentation/Siltation		Silviculture Activities
													Unspecified Unpaved Road or Trail
Madison	MT41F006_030	WATKINS CREEK, headwaters to mouth (Hebgen Lake)	5	7.08	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers		Agriculture
											Flow Regime Modification		Grazing in Riparian or Shoreline Zones
											Sedimentation/Siltation		Loss of Riparian Habitat

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020008 Gallatin

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Gallatin	MT41H001_010	GALLATIN RIVER, Spanish Creek to mouth (Missouri River)	4C	48.12	MILES	B-1	N	F	F	X	Flow Regime Modification	Crop Production (Irrigated)
Lower Gallatin	MT41H002_010	CAMP CREEK, headwaters to mouth (Gallatin River)	4A	29.55	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Escherichia coli (E. Coli)	Agriculture Animal Feeding Operations (NPS)
											Flow Regime Modification	Channelization
											Nitrogen, Total	Crop Production (Crop Land or Dry Land)
											Other anthropogenic substrate alterations	Crop Production (Irrigated)
											Phosphorus, Total	Grazing in Riparian or Shoreline Zones
											Physical substrate habitat alterations	Natural Sources
											Sedimentation/Siltation	Unrestricted Cattle Access
												Unspecified Unpaved Road or Trail
Lower Gallatin	MT41H002_020	GODFREY CREEK, headwaters to mouth (Moreland Ditch), T1S R3E S12	4A	9	MILES	B-1	N	X	X	N	Algae	Agriculture
											Alteration in stream-side or littoral vegetative covers Escherichia coli (E. Coli)	Animal Feeding Operations (NPS) Crop Production (Crop Land or Dry Land)
											Nitrogen, Total	Grazing in Riparian or Shoreline Zones
											Phosphorus, Total	Livestock (Grazing or Feeding Operations)
											Sedimentation/Siltation	Rural (Residential Areas) Septage Disposal
Lower Gallatin	MT41H002_031	SOUTH COTTONWOOD CREEK, Middle Creek Assoc Ditch diversion to mouth (Gallatin River)	4C	6.26	MILES	B-1	N	F	F	I	Flow Regime Modification	Crop Production (Irrigated)
Lower Gallatin	MT41H003_010	EAST GALLATIN RIVER, confluence of Rocky and Bear Creeks to MT HWY No. 411 (Spring Hill Rd)	4A	10.7	MILES	B-1	N	X	X	N	Nitrogen, Total	Grazing in Riparian or Shoreline Zones
											Phosphorus, Total	Municipal (Urbanized High Density Area) Residential Districts
Lower Gallatin	MT41H003_020	EAST GALLATIN RIVER, MT HWY 411 to Smith Creek	4A	22.12	MILES	B-2	N	X	X	N	Algae	Crop Production (Crop Land or Dry Land)
											Alteration in stream-side or littoral vegetative covers Flow Regime Modification	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
											Nitrogen, Total	Livestock (Grazing or Feeding Operations)
											Phosphorus, Total	Municipal Point Source Discharges

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020008 Gallatin

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Lower Gallatin	MT41H003_020	EAST GALLATIN RIVER, MT HWY 411 to Smith Creek	4A	22.12	MILES	B-2	N	X	X	N	pH	Residential Districts Yard Maintenance
Lower Gallatin	MT41H003_021	MANDEVILLE CREEK, headwaters to mouth (East Gallatin River)	4A	5.62	MILES	B-1	N	X	X	N	Nitrogen, Total Phosphorus, Total	Municipal (Urbanized High Density Area) Municipal Point Source Discharges Residential Districts
Lower Gallatin	MT41H003_030	EAST GALLATIN RIVER, Smith Creek to mouth (Gallatin River)	4A	13.54	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total pH	Grazing in Riparian or Shoreline Zones Municipal Point Source Discharges
Lower Gallatin	MT41H003_040	SOURDOUGH CREEK, confluence of Limestone Creek and Bozeman Creek to the mouth (East Gallatin River), T2S R6E S6	4A	4.88	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Escherichia coli (E. Coli) Nitrogen, Total Sedimentation/Siltation	Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Livestock (Grazing or Feeding Operations) Loss of Riparian Habitat Municipal (Urbanized High Density Area) Natural Sources Residential Districts Septage Disposal Unspecified Unpaved Road or Trail Urban Runoff/Storm Sewers Wastes from Pets
Lower Gallatin	MT41H003_050	JACKSON CREEK, headwaters to mouth (Rocky Creek)	4A	8.55	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Phosphorus, Total Sedimentation/Siltation	Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Silviculture Activities Unspecified Unpaved Road or Trail
Lower Gallatin	MT41H003_060	SMITH CREEK, confluence of Ross and Reese Creeks to mouth (East Gallatin River)	4A	6.76	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Escherichia coli (E. Coli)	Agriculture Livestock (Grazing or Feeding Operations)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020008 Gallatin

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Lower Gallatin	MT41H003_060	SMITH CREEK, confluence of Ross and Reese Creeks to mouth (East Gallatin River)	4A	6.76	MILES	B-1	N	X	X	N	Nitrate Nitrogen, Total Physical substrate habitat alterations Sedimentation/Siltation	Loss of Riparian Habitat Managed Pasture Grazing Rural (Residential Areas) Septage Disposal Wastes from Pets Wildlife Other than Waterfowl
Lower Gallatin	MT41H003_070	REESE CREEK, headwaters to mouth (Smith Creek)	4A	8.28	MILES	B-1	N	X	X	N	Escherichia coli (E. Coli) Nitrate Nitrogen, Total Sediment	Agriculture Crop Production (Crop Land or Dry Land)
Lower Gallatin	MT41H003_080	ROCKY CREEK, confluence of Jackson and Timberline Creeks to mouth (East Gallatin River)	4A	7.94	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Other anthropogenic substrate alterations Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Channelization Highways, Roads, Bridges, Infrastructure (New Construction) Loss of Riparian Habitat Residential Districts
Lower Gallatin	MT41H003_081	BEAR CREEK, headwaters to mouth (Rocky Creek)	4A	10.15	MILES	B-1	N	X	X	N	Algae Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Silviculture Harvesting Unspecified Unpaved Road or Trail
Lower Gallatin	MT41H003_090	THOMPSON CREEK (Thompson Spring), headwaters to mouth (East Gallatin River)	4A	7.42	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Nitrogen, Total Sedimentation/Siltation	Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Unspecified Unpaved Road or Trail
Lower Gallatin	MT41H003_100	DRY CREEK, headwaters to mouth (East Gallatin River)	4A	20.09	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Cause Unknown Nitrogen, Total	Agriculture Channelization Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020008 Gallatin

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Gallatin	MT41H003_100	DRY CREEK, headwaters to mouth (East Gallatin River)	4A	20.09	MILES	B-1	N	X	X	N	Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation	Source Unknown Unspecified Unpaved Road or Trail
Lower Gallatin	MT41H003_110	BRIDGER CREEK, headwaters to mouth (East Gallatin River)	4A	21.46	MILES	B-1	N	X	X	N	Chlorophyll-a Nitrate/Nitrite (Nitrite + Nitrate as N)	Grazing in Riparian or Shoreline Zones Impacts from Resort Areas Unspecified Unpaved Road or Trail
Lower Gallatin	MT41H003_120	STONE CREEK, headwaters to mouth (Bridger Creek)	4A	6.06	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Residential Districts Silviculture Harvesting Unspecified Unpaved Road or Trail
Lower Gallatin	MT41H003_132	HYALITE CREEK, Bozeman water supply intake to the mouth (East Gallatin River)	4A	20.99	MILES	B-1	N	X	X	N	Flow Regime Modification Nitrogen, Total	Crop Production (Irrigated) Leaking Underground Storage Tanks Managed Pasture Grazing Natural Sources
Upper Gallatin	MT41H005_010	STORM CASTLE CREEK, headwaters to the mouth (Gallatin River), T4S R4E S33	5	14.19	MILES	B-1	N	F	X	F	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Physical substrate habitat alterations	Forest Roads (Road Construction and Use) Natural Sources Silviculture Activities
Upper Gallatin	MT41H005_020	TAYLOR FORK, Lee Metcalf Wilderness boundary to mouth (Gallatin River)	5	13.98	MILES	B-1	N	X	X	F	Physical substrate habitat alterations Sedimentation/Siltation	Silviculture Activities Site Clearance (Land Development or Redevelopment)
Upper Gallatin	MT41H005_030	CACHE CREEK, headwaters to mouth (Taylor Fork)	5	4.66	MILES	B-1	N	F	X	F	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Forest Roads (Road Construction and Use) Silviculture Activities
Upper Gallatin	MT41H005_040	WEST FORK GALLATIN RIVER, confluence Middle and North Forks to mouth (Gallatin River)	5	3.87	MILES	B-1	N	F	F	N	Chlorophyll-a Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Silviculture Activities Site Clearance (Land Development or Redevelopment)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10020008 Gallatin

Watershed: Missouri Headwaters

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Upper Gallatin	MT41H005_040	WEST FORK GALLATIN RIVER, confluence Middle and North Forks to mouth (Gallatin River)	5	3.87	MILES	B-1	N	F	F	N	Sedimentation/Siltation	
Upper Gallatin	MT41H005_050	MIDDLE FORK WEST FORK GALLATIN RIVER, headwaters to mouth (West Fork Gallatin River)	4A	6.23	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Escherichia coli (E. Coli) Fecal Coliform Nitrate/Nitrite (Nitrite + Nitrate as N) Sediment	Animal Feeding Operations (NPS) Highway/Road/Bridge Runoff (Non-construction Related) Highways, Roads, Bridges, Infrastructure (New Construction) On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Unspecified Urban Stormwater Wastes from Pets Waterfowl
Upper Gallatin	MT41H005_060	SOUTH FORK WEST FORK GALLATIN RIVER, headwaters to mouth (West Fork Gallatin River)	5	14.57	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Nitrate/Nitrite (Nitrite + Nitrate as N) Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation	Forest Roads (Road Construction and Use) On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Silviculture Activities Site Clearance (Land Development or Redevelopment)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

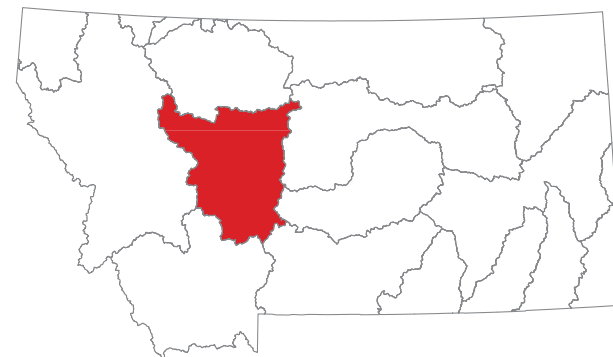
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Upper Missouri Sub-Major Basin

Upper Missouri River Basin

USGS HUC	HUC NAME
10030101	Upper Missouri
10030102	Upper Missouri-Dearborn
10030103	Smith
10030104	Sun
10030105	Belt



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Missouri River	MT41I001_011	MISSOURI RIVER, headwaters to Toston Dam	5	21.95	MILES	B-1	N	F	N	F	Arsenic Flow Regime Modification Nitrogen, Total Sedimentation/Siltation	Crop Production (Irrigated) Crop Production (Non-Irrigated) Grazing in Riparian or Shoreline Zones Municipal Point Source Discharges Natural Sources
Missouri River	MT41I001_012	MISSOURI RIVER, Toston Dam to Canyon Ferry Reservoir	5	22.6	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Cadmium Copper Flow Regime Modification Lead Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Impacts from Abandoned Mine Lands (Inactive)
Canyon Ferry	MT41I002_010	AVALANCHE CREEK, headwaters to mouth (Canyon Ferry Reservoir)	4C	16.71	MILES	B-1	N	X	X	X	Flow Regime Modification	Agriculture Crop Production (Irrigated)
Canyon Ferry	MT41I002_020	BATTLE CREEK, headwaters to mouth (Sixteenmile Creek)	5	22.76	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Phosphorus, Total Sedimentation/Siltation Temperature	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Canyon Ferry	MT41I002_030	BEAVER CREEK, headwaters to mouth (Canyon Ferry Reservoir)	5	14.74	MILES	B-1	N	F	N	X	Cadmium Chromium, Total Flow Regime Modification Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Phosphorus, Total Silver Zinc	Agriculture Crop Production (Irrigated) Impacts from Abandoned Mine Lands (Inactive)
Canyon Ferry	MT41I002_041	CONFEDERATE GULCH, headwaters to Hunter Gulch	5	10.04	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers	Agriculture

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Canyon Ferry	MT41I002_041	CONFEDERATE GULCH, headwaters to Hunter Gulch	5	10.04	MILES	B-1	N	F	X	X	Cadmium Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Physical substrate habitat alterations	Channelization Dredge Mining Highway/Road/Bridge Runoff (Non-construction Related) Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive) Placer Mining
Canyon Ferry	MT41I002_042	CONFEDERATE GULCH, Hunter Gulch to mouth (Canyon Ferry Reservoir)	5	5.21	MILES	B-1	N	X	X	X	Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Phosphorus, Total Physical substrate habitat alterations	Agriculture Crop Production (Irrigated) Dredge Mining Impacts from Abandoned Mine Lands (Inactive)
Canyon Ferry	MT41I002_050	CROW CREEK, National Forest boundary to mouth (Missouri River)	5	15.89	MILES	B-1	N	N	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Habitat Modification - other than Hydromodification
Canyon Ferry	MT41I002_060	CROW CREEK, Crow Creek Falls to National Forest boundary	5	10.15	MILES	B-1	N	F	F	F	Copper Lead Physical substrate habitat alterations	Channelization Impacts from Abandoned Mine Lands (Inactive) Placer Mining
Deep Creek	MT41I002_070	DEEP CREEK, National Forest boundary to mouth (Missouri River)	5	20.35	MILES	B-1	N	X	X	I	Flow Regime Modification Temperature	Channelization Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Water Diversions
Canyon Ferry	MT41I002_080	DRY CREEK, headwaters to mouth (Missouri River)	5	21.56	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification	Crop Production (Irrigated) Forest Roads (Road Construction and Use)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Canyon Ferry	MT41I002_080	DRY CREEK, headwaters to mouth (Missouri River)	5	21.56	MILES	B-1	N	F	F	I	Phosphorus, Total Sedimentation/Siltation Temperature	Grazing in Riparian or Shoreline Zones
Canyon Ferry	MT41I002_090	HELLGATE GULCH, headwaters to mouth (Canyon Ferry Reservoir)	5	11.6	MILES	B-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers Mercury Other anthropogenic substrate alterations Physical substrate habitat alterations	Agriculture Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related) Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive) Mine Tailings Natural Sources Other Recreational Pollution Sources Silviculture Activities
Canyon Ferry	MT41I002_100	INDIAN CREEK, headwaters to mouth (Missouri River)	5	8.01	MILES	B-1	X	X	N	X	Arsenic Cadmium Lead Mercury	Acid Mine Drainage Dredge Mining Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Canyon Ferry	MT41I002_110	MAGPIE CREEK, headwaters to mouth (Canyon Ferry Reservoir)	5	12.76	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones
Canyon Ferry	MT41I002_120	SIXTEENMILE CREEK, Lost Creek to mouth (Missouri River)	5	49.61	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Channelization Grazing in Riparian or Shoreline Zones
Canyon Ferry	MT41I002_130	WHITE GULCH, headwaters to mouth (Canyon Ferry Reservoir)	5	13.26	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Placer Mining

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Canyon Ferry	MT41I002_140	WILSON CREEK, 3.3 miles upstream to mouth (Crow Creek)	5	3.3	MILES	B-1	X	X	N	X	Mercury	Impacts from Abandoned Mine Lands (Inactive)
Canyon Ferry	MT41I002_150	CAVE GULCH, headwaters to mouth (Canyon Ferry Reservoir)	5	6.42	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Channelization
											Nitrogen, Total	Placer Mining
											Phosphorus, Total	Source Unknown
											Sedimentation/Siltation	Unspecified Unpaved Road or Trail
Canyon Ferry	MT41I002_170	EAST FORK INDIAN CREEK, headwaters to mouth (Indian Creek)	5	5.87	MILES	B-1	X	X	N	X	Arsenic	Acid Mine Drainage
											Cadmium	Impacts from Abandoned Mine Lands (Inactive)
											Lead	
											Mercury	
Missouri River	MT41I003_010	CANYON FERRY RESERVOIR	5	32810	ACRES	B-1	N	N	N	N	Algae	Acid Mine Drainage
											Ammonia, Un-ionized	Agriculture
											Arsenic	Impacts from Abandoned Mine Lands (Inactive)
											Thallium	Internal Nutrient Recycling
												Municipal Point Source Discharges
												Natural Sources
												On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
												Site Clearance (Land Development or Redevelopment)
Missouri River	MT41I004_030	MISSOURI RIVER, Holter Dam to Little Prickly Pear Creek	5	2.84	MILES	B-1	N	F	F	F	Flow Regime Modification	Dam or Impoundment
											Nitrogen, Total	Grazing in Riparian or Shoreline Zones
											Phosphorus, Total	Municipal Point Source Discharges
											Sedimentation/Siltation	Natural Sources
												On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
Holter	MT41I005_011	BEAVER CREEK, headwaters to confluence of Bridge Creek	5	13.8	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Forest Roads (Road Construction and Use)
											Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
												Highway/Road/Bridge Runoff (Non-construction Related)
												Livestock (Grazing or Feeding Operations)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Holter	MT41I005_012	BEAVER CREEK, Nelson to mouth (Missouri River below Hauser Dam)	5	5.51	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Canyon Ferry	MT41I005_020	TROUT CREEK, headwaters to mouth (Hauser Lake)	5	20.52	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Unspecified Unpaved Road or Trail
Holter	MT41I005_040	VIRGINIA CREEK, headwaters to mouth (Canyon Creek)	5	8.25	MILES	B-1	N	F	F	F	Lead	Impacts from Abandoned Mine Lands (Inactive)
Holter	MT41I005_051	LITTLE PRICKLY PEAR CREEK, North and South Forks to Clark Creek	5	23.9	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Physical substrate habitat alterations Sedimentation/Siltation Temperature	Agriculture Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Silviculture Activities Water Diversions
Holter	MT41I005_052	LITTLE PRICKLY PEAR CREEK, Clark Creek to mouth (Missouri River)	5	10.23	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Physical substrate habitat alterations Temperature	Channelization Highways, Roads, Bridges, Infrastructure (New Construction) Loss of Riparian Habitat Water Diversions
Holter	MT41I005_080	WOODSIDING GULCH, headwaters to mouth (Little Prickly Pear Creek), T13N R4W S33	5	2.19	MILES	B-1	N	F	F	N	Phosphorus, Total	Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related)
Lake Helena	MT41I006_020	PRICKLY PEAR CREEK, Helena WWTP Discharge Ditch to Lake Helena	5	4.15	MILES	I	N	F	N	I	Alteration in stream-side or littoral vegetative covers Ammonia, Un-ionized Arsenic Cadmium Copper Flow Regime Modification Lead Nitrate/Nitrite (Nitrite + Nitrate as N)	Acid Mine Drainage Agriculture Contaminated Sediments Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Industrial Point Source Discharge Municipal (Urbanized High Density Area) Municipal Point Source Discharges

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Lake Helena	MT41I006_020	PRICKLY PEAR CREEK, Helena WWTP Discharge Ditch to Lake Helena	5	4.15	MILES	I	N	F	N	I	Nitrogen, Total	Rural (Residential Areas)
											Phosphorus, Total	Unspecified Unpaved Road or Trail
											Physical substrate habitat alterations	Water Diversions
											Sedimentation/Siltation	
											Temperature	
											Zinc	
Lake Helena	MT41I006_030	PRICKLY PEAR CREEK, Highway 433 (Wyllie Dr.) Crossing to Helena WWTP Discharge	5	6.54	MILES	I	N	X	N	I	Alteration in stream-side or littoral vegetative covers	Acid Mine Drainage
											Ammonia, Un-ionized	Agriculture
											Arsenic	Contaminated Sediments
											Cadmium	Crop Production (Irrigated)
											Copper	Grazing in Riparian or Shoreline Zones
											Flow Regime Modification	Habitat Modification - other than Hydromodification
											Lead	Impacts from Abandoned Mine Lands (Inactive)
											Nitrogen, Total	Industrial Point Source Discharge
											Phosphorus, Total	Municipal (Urbanized High Density Area)
											Physical substrate habitat alterations	Municipal Point Source Discharges
											Sedimentation/Siltation	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
											Temperature	Rural (Residential Areas)
Lake Helena	MT41I006_040	PRICKLY PEAR CREEK, Lump Gulch to County Road Wyllie Drive	4A	10.84	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers	Acid Mine Drainage
											Arsenic	Channelization
											Cadmium	Contaminated Sediments
											Copper	Highways, Roads, Bridges, Infrastructure (New Construction)
											Lead	Impacts from Abandoned Mine Lands (Inactive)
											Physical substrate habitat alterations	Industrial Point Source Discharge
											Sedimentation/Siltation	Loss of Riparian Habitat
											Temperature	Water Diversions
											Zinc	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lake Helena	MT41I006_050	PRICKLY PEAR CREEK, Spring Creek to Lump Gulch	4A	7.05	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Cadmium Lead Physical substrate habitat alterations Sedimentation/Siltation Zinc	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive) Mine Tailings Placer Mining Streambank Modifications/destabilization
Lake Helena	MT41I006_060	PRICKLY PEAR CREEK, headwaters to Spring Creek	4A	8.84	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Lead Physical substrate habitat alterations Total Suspended Solids (TSS)	Acid Mine Drainage Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive) Loss of Riparian Habitat Placer Mining Streambank Modifications/destabilization Unspecified Unpaved Road or Trail
Lake Helena	MT41I006_070	GOLCONDA CREEK, headwaters to mouth (Prickly Pear Creek), T7N R3W S8	4A	2.92	MILES	B-1	N	X	N	X	Cadmium Lead	Impacts from Abandoned Mine Lands (Inactive) Mine Tailings Subsurface (Hardrock) Mining
Lake Helena	MT41I006_080	SPRING CREEK, Corbin Creek to mouth (Prickly Pear Creek)	4A	1.74	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Flow Regime Modification Lead Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Total Suspended Solids (TSS) Zinc	Acid Mine Drainage Agriculture Channelization Contaminated Sediments Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Mine Tailings Unspecified Unpaved Road or Trail

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *				Source Name *
							AqL	Ag	DW	Rec					
Lake Helena	MT41I006_090	CORBIN CREEK, headwaters to mouth (Spring Creek)	5	2.82	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers	Agriculture			
											Arsenic	Dam or Impoundment			
											Cadmium	Mill Tailings			
											Copper	Mine Tailings			
											Iron				
											Lead				
											Sediment				
											Silver				
											Temperature				
											Zinc				
											pH				
Lake Helena	MT41I006_100	MIDDLE FORK WARM SPRINGS CREEK, headwaters to mouth (Warm Springs Creek-Prickly Pear Creek)	4A	2.82	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers	Impacts from Abandoned Mine Lands (Inactive)			
											Arsenic	Mine Tailings			
											Cadmium	Unspecified Unpaved Road or Trail			
											Lead				
											Sedimentation/Siltation				
											Zinc				
Lake Helena	MT41I006_110	WARM SPRINGS CREEK, the Middle Fork to mouth (Prickly Pear Creek)	4A	4.17	MILES	B-1	N	F	N	F	Arsenic	Grazing in Riparian or Shoreline Zones			
											Cadmium	Impacts from Abandoned Mine Lands (Inactive)			
											Lead	Mine Tailings			
											Sedimentation/Siltation	Unspecified Unpaved Road or Trail			
											Zinc				
Lake Helena	MT41I006_120	CLANCY CREEK, headwaters to mouth (Prickly Pear Creek)	4A	12.82	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers	Acid Mine Drainage			
											Arsenic	Animal Feeding Operations (NPS)			
											Cadmium	Contaminated Sediments			
											Copper	Grazing in Riparian or Shoreline Zones			
											Lead	Impacts from Abandoned Mine Lands (Inactive)			

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Lake Helena	MT41I006_120	CLANCY CREEK, headwaters to mouth (Prickly Pear Creek)	4A	12.82	MILES	B-1	N	X	N	X	Other anthropogenic substrate alterations Sedimentation/Siltation Zinc	Unspecified Unpaved Road or Trail
Lake Helena	MT41I006_130	LUMP GULCH, headwaters to mouth (Prickly Pear Creek)	4A	14.68	MILES	B-1	N	X	N	X	Cadmium Copper Lead Total Suspended Solids (TSS) Zinc	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive) Natural Sources Silviculture Harvesting Unspecified Unpaved Road or Trail
Lake Helena	MT41I006_141	TENMILE CREEK, headwaters to confluence of Spring Creek	5	6.72	MILES	A-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Lead Sedimentation/Siltation Zinc	Acid Mine Drainage Forest Roads (Road Construction and Use) Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Lake Helena	MT41I006_142	TENMILE CREEK, Spring Creek to Helena Water Treatment Plant, Lat 46.573 Long -112.214	4A	7.32	MILES	A-1	N	N	N	X	Arsenic Cadmium Copper Flow Regime Modification Lead Sedimentation/Siltation Zinc	Acid Mine Drainage Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification
Lake Helena	MT41I006_143	TENMILE CREEK, Helena Water Treatment Plant to mouth (Prickly Pear Creek)	4A	16.38	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Eutrophication	Acid Mine Drainage Agriculture Channelization Crop Production (Irrigated) Habitat Modification - other than Hydromodification

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Lake Helena	MT41I006_143	TENMILE CREEK, Helena Water Treatment Plant to mouth (Prickly Pear Creek)	4A	16.38	MILES	B-1	N	X	N	X	Flow Regime Modification Lead Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Zinc	Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Site Clearance (Land Development or Redevelopment)
Lake Helena	MT41I006_150	SILVER CREEK, headwaters to T11N R4W S30 / S31 to Lake Helena	5	22.1	MILES	B-1	N	X	N	X	Arsenic DDE (Dichlorodiphenyldichloroethylene) Flow Regime Modification Mercury Other anthropogenic substrate alterations	Agriculture Crop Production (Irrigated) Dredge Mining Mill Tailings Subsurface (Hardrock) Mining
Lake Helena	MT41I006_160	SEVENMILE CREEK, headwaters to mouth (Tenmile Creek)	4A	8.45	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Copper Flow Regime Modification Lead Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Channelization Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Streambank Modifications/destabilization
Lake Helena	MT41I006_180	NORTH FORK WARM SPRINGS CREEK, headwaters to mouth (Warmsprings Creek)	5	2.7	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Organic Enrichment Other anthropogenic substrate alterations Sedimentation/Siltation Zinc	Grazing in Riparian or Shoreline Zones Natural Sources
Lake Helena	MT41I006_190	JACKSON CREEK, headwaters to mouth (McClellan Creek-Prickly Pear Creek)	4A	2.32	MILES	B-1	N	X	X	X	Zinc	Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Lake Helena	MT41I006_210	JENNIES FORK, headwaters to mouth (Silver Creek)	5	1.36	MILES	B-1	N	F	N	F	Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Phosphorus, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Natural Sources Source Unknown Subsurface (Hardrock) Mining
Lake Helena	MT41I006_220	SKELLY GULCH, headwaters to mouth (Greenhorn Creek/Sevenmile Creek), T10N R5W S2	4A	7.81	MILES	B-1	N	X	I	X	Sedimentation/Siltation	Unspecified Unpaved Road or Trail
Lake Helena	MT41I006_230	GRANITE CREEK, headwaters to mouth (Sevenmile Creek)	4A	2.49	MILES	B-1	X	X	N	X	Arsenic Cadmium	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive)
Lake Helena	MT41I007_010	LAKE HELENA	4A	2078.9	ACRES	B-1	N	F	N	X	Arsenic Lead Nitrogen, Total Phosphorus, Total	Acid Mine Drainage Crop Production (Irrigated) Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Municipal Point Source Discharges Natural Sources Rangeland Grazing
Missouri River	MT41I007_020	HOLTER LAKE	5	4358	ACRES	B-1	N	X	X	X	Mercury	Atmospheric Deposition - Toxics Historic Bottom Deposits (Not Sediment) Illegal Dumps or Other Inappropriate Waste Disposal Impacts from Abandoned Mine Lands (Inactive) Placer Mining Source Unknown
Missouri River	MT41I007_040	HAUSER LAKE	5	3190	ACRES	B-1	N	X	N	F	Arsenic DDT (Dichlorodiphenyltrichloroethane) Dissolved Oxygen Endosulfan sulfate Endrin aldehyde	Acid Mine Drainage Agriculture Atmospheric Deposition - Toxics Contaminated Sediments Dam Construction (Other than Upstream Flood Control Projects)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030101 Upper Missouri

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Missouri River	MT411007_040	HAUSER LAKE	5	3190	ACRES	B-1	N	X	N	F	Mercury	Grazing in Riparian or Shoreline Zones
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Highway/Road/Bridge Runoff (Non-construction Related)
											Phosphorus, Total	Impacts from Abandoned Mine Lands (Inactive)
												Impacts from Hydrostructure Flow Regulation/modification Mine Tailings Municipal Point Source Discharges Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Silviculture Activities Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030102 Upper Missouri-Dearborn

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Missouri River	MT41Q001_011	MISSOURI RIVER, Sun River to Rainbow Dam	5	6.99	MILES	B-2	N	F	N	F	Chromium, Total	Contaminated Sediments
											Mercury	Crop Production (Irrigated)
											Physical substrate habitat alterations	Dam Construction (Other than Upstream Flood Control Projects)
											Polychlorinated Biphenyls (PCBs)	Industrial Point Source Discharge
											Sedimentation/Siltation	Industrial/Commercial Site Stormwater Discharge (Permitted)
											Selenium	
											Turbidity	
Missouri River	MT41Q001_013	MISSOURI RIVER, Rainbow Dam to Morony Dam	5	9.12	MILES	B-3	N	F	N	F	Arsenic	Contaminated Sediments
											Copper	Dam or Impoundment
											Polychlorinated Biphenyls (PCBs)	Impacts from Abandoned Mine Lands (Inactive)
											Sedimentation/Siltation	Industrial Point Source Discharge
											Temperature	Natural Sources
											Turbidity	Post-development Erosion and Sedimentation
Missouri River	MT41Q001_014	MISSOURI RIVER, Morony Dam to Marias River	5	54.62	MILES	B-3	N	F	N	N	Aluminum	Agriculture
											Arsenic	Dam or Impoundment
											Cadmium	Industrial Point Source Discharge
											Chlorophyll-a	Streambank Modifications/destabilization
											Copper	
											Iron	
											Lead	
											Nitrogen, Total	
											Phosphorus, Total	
											Sedimentation/Siltation	
											Zinc	
Missouri River	MT41Q001_021	MISSOURI RIVER, Little Prickly Pear Creek to Sheep Creek	5	20.93	MILES	B-1	N	F	N	F	Arsenic	Crop Production (Irrigated)
											Flow Regime Modification	Grazing in Riparian or Shoreline Zones
											Nitrogen, Total	Impacts from Hydrostructure Flow Regulation/modification
											Sedimentation/Siltation	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030102 Upper Missouri-Dearborn

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use		Use		Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Missouri River	MT41Q001_021	MISSOURI RIVER, Little Prickly Pear Creek to Sheep Creek	5	20.93	MILES	B-1	N	F	N	F		Natural Sources
Missouri River	MT41Q001_022	MISSOURI RIVER, Sheep Creek to Sun River	5	65.3	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Agriculture Dam Construction (Other than Upstream Flood Control Projects) Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Hydrostructure Flow Regulation/modification Natural Sources Streambank Modifications/destabilization
Benton Lake	MT41Q002_010	LAKE CREEK, headwaters to mouth (Benton Lake)	5	19.03	MILES	B-3	N	N	N	X	Cadmium Flow Regime Modification Salinity Sedimentation/Siltation Selenium Zinc	Agriculture Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification
Missouri Cascade	MT41Q002_020	COTTONWOOD CREEK, 1 mile above Stockett to mouth (Sand Coulee Creek-Missouri River)	5	4.32	MILES	B-1	N	X	N	X	Aluminum Arsenic Cadmium Copper Iron Lead Nickel Zinc	Acid Mine Drainage Subsurface (Hardrock) Mining
Missouri Cascade	MT41Q002_030	NUMBER FIVE COULEE, headwaters to mouth (Cottonwood Creek)	5	13.68	MILES	B-1	N	X	N	X	Aluminum Cadmium Iron Lead Nickel Zinc	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive) Subsurface (Hardrock) Mining

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030102 Upper Missouri-Dearbon

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Missouri Cascade	MT41Q002_040	SAND COULEE CREEK, confluence with Cottonwood Creek to the mouth (Missouri River)	5	18.63	MILES	B-1	N	N	N	X	Lead	Agriculture
											Salinity	Impacts from Abandoned Mine Lands (Inactive)
											Zinc	Subsurface (Hardrock) Mining
Missouri Choteau	MT41Q002_050	BOX ELDER CREEK, Spring Creek to mouth (Missouri River)	5	17.47	MILES	B-3	N	F	F	F	Nitrate/Nitrite (Nitrite + Nitrate as N)	Grazing in Riparian or Shoreline Zones
											Sedimentation/Siltation	
Missouri Cascade	MT41Q002_060	SAND COULEE, headwaters to mouth (Sand Coulee Creek)	4A	5.94	MILES	B-1	N	N	N	X	Aluminum	Acid Mine Drainage
											Cadmium	Impacts from Abandoned Mine Lands (Inactive)
											Copper	Subsurface (Hardrock) Mining
											Iron	
											Nickel	
											Salinity	
Zinc												
Dearborn	MT41Q003_010	DEARBORN RIVER, Falls Creek to mouth (Missouri River)	5	48.26	MILES	B-1	N	F	F	X	Temperature	Impacts from Hydrostructure Flow Regulation/modification
Dearborn	MT41Q003_020	MIDDLE FORK DEARBORN RIVER, headwaters to mouth (Dearborn River)	4A	14.51	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
												Habitat Modification - other than Hydromodification
Dearborn	MT41Q003_030	SOUTH FORK DEARBORN RIVER, headwaters to mouth (Dearborn River)	4A	16.14	MILES	B-1	N	F	X	F	Flow Regime Modification	Grazing in Riparian or Shoreline Zones
											Sedimentation/Siltation	Habitat Modification - other than Hydromodification
												Water Diversions
Dearborn	MT41Q003_040	FLAT CREEK, Henry Creek to mouth (Dearborn River)	4A	15.92	MILES	B-1	N	F	X	F	Flow Regime Modification	Grazing in Riparian or Shoreline Zones
											Sedimentation/Siltation	Habitat Modification - other than Hydromodification
												Water Diversions
Benton Lake	MT41Q005_020	BENTON LAKE	5	5345.1	ACRES	B-3	N	N	N	N	Algae	Agriculture
											Nitrogen, Total	Crop Production (Irrigated)
											Salinity	
											Selenium	
											Sulfate	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030103 Smith

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Smith	MT41J001_010	SMITH RIVER, North and South Forks to Hound Creek	5	98.1	MILES	B-1	N	F	F	N	Escherichia coli (E. Coli) Flow Regime Modification Phosphorus, Total	Agriculture Crop Production (Irrigated) Rangeland Grazing
Smith	MT41J001_020	SMITH RIVER, Hound Creek to mouth (Missouri River)	5	24.14	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Other anthropogenic substrate alterations Phosphorus, Total Physical substrate habitat alterations Temperature	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Rangeland Grazing
Smith	MT41J002_011	NORTH FORK SMITH RIVER, Lake Sutherlin to mouth (Smith River), T9N R6E S21	5	23	MILES	B-1	F	X	F	N	Chlorophyll-a Escherichia coli (E. Coli) Nitrogen, Total Phosphorus, Total	Source Unknown
Smith	MT41J002_020	HOUND CREEK, Spring Creek to mouth (Smith River)	5	6.71	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Nitrogen, Total	Grazing in Riparian or Shoreline Zones
Smith	MT41J002_030	SHEEP CREEK, headwaters to mouth (Smith River)	5	41.31	MILES	B-1	N	F	F	N	Aluminum Escherichia coli (E. Coli)	Grazing in Riparian or Shoreline Zones Natural Sources
Smith	MT41J002_040	BEAVER CREEK, headwaters to mouth (Smith River)	5	20.58	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Smith	MT41J002_050	BENTON GULCH, headwaters to mouth (Smith River)	5	13.41	MILES	B-1	X	X	X	N	Escherichia coli (E. Coli)	Source Unknown
Smith	MT41J002_060	ELK CREEK, headwaters to mouth (Camas Creek)	5	10.41	MILES	B-1	N	F	F	F	Flow Regime Modification Nitrogen, Total	Crop Production (Irrigated) Livestock (Grazing or Feeding Operations)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030103 Smith

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Smith	MT41J002_060	ELK CREEK, headwaters to mouth (Camas Creek)	5	10.41	MILES	B-1	N	F	F	F	Phosphorus, Total Sedimentation/Siltation Temperature	
Smith	MT41J002_070	THOMPSON GULCH, headwaters to mouth (Smith River)	5	10.81	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Smith	MT41J002_081	NEWLAN CREEK, Newlan Reservoir to mouth (Smith River)	5	9.01	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Escherichia coli (E. Coli) Flow Regime Modification Sedimentation/Siltation Temperature	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Smith	MT41J002_082	NEWLAN CREEK, headwaters to Newlan Reservoir	5	13.3	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Cadmium Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Transfer of Water from an Outside Watershed
Smith	MT41J002_100	LITTLE CAMAS CREEK, headwaters to mouth (Camas Creek)	5	3.82	MILES	B-1	N	F	F	N	Chlorophyll-a Nitrogen, Total Temperature	Rangeland Grazing
Smith	MT41J002_110	CAMAS CREEK, junction of Big and Little Camas Creeks to mouth (Smith River)	5	14.28	MILES	B-1	X	X	X	N	Escherichia coli (E. Coli)	Source Unknown
Smith	MT41J002_120	MOOSE CREEK, headwaters to mouth (Sheep Creek)	5	11.63	MILES	B-1	N	F	F	I	Aluminum	Natural Sources

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030104 Sun

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Sun	MT41K001_010	SUN RIVER, Gibson Dam to Muddy Creek	4A	83.01	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation Temperature	Agriculture Channelization Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification
Sun	MT41K001_020	SUN RIVER, Muddy Creek to mouth (Missouri River)	4A	17.3	MILES	B-3	N	N	F	N	Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Total Suspended Solids (TSS)	Agriculture Channelization Crop Production (Irrigated) Rangeland Grazing
Sun	MT41K002_010	MUDDY CREEK, headwaters to mouth (Sun River)	4A	35.84	MILES	I	N	N	N	N	Nitrogen, Total Phosphorus, Total Salinity Sedimentation/Siltation Selenium Sulfate Temperature Total Dissolved Solids (TDS)	Agriculture Channel Erosion/Incision from Upstream Hydromodifications Crop Production (Crop Land or Dry Land) Habitat Modification - other than Hydromodification Streambank Modifications/destabilization
Sun	MT41K002_020	FORD CREEK, from two miles above Smith Creek (T20N R8W S25) to mouth (Smith Creek)	4A	2.48	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Other anthropogenic substrate alterations Sedimentation/Siltation	Channel Erosion/Incision from Upstream Hydromodifications Grazing in Riparian or Shoreline Zones Streambank Modifications/destabilization
Sun	MT41K002_040	HUBER COULEE, headwaters to mouth (Sun River Valley Ditch)	5	3.6	MILES	B-1	X	X	X	N	Escherichia coli (E. Coli)	Leaking Underground Storage Tanks Manure Runoff

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030105 Belt

Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Belt	MT41U001_011	BELT CREEK, headwaters to Big Otter Creek	5	50.77	MILES	B-1	N	N	N	X	Alteration in stream-side or littoral vegetative covers Cadmium Copper Lead Salinity Sedimentation/Siltation Zinc	Acid Mine Drainage Channelization Grazing in Riparian or Shoreline Zones Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive)
Belt	MT41U001_012	BELT CREEK, Big Otter Creek to mouth (Missouri River)	5	39.44	MILES	B-2	N	N	N	I	Alteration in stream-side or littoral vegetative covers Aluminum Cadmium Iron Lead Other anthropogenic substrate alterations Salinity Sedimentation/Siltation Zinc	Acid Mine Drainage Channelization Grazing in Riparian or Shoreline Zones Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Abandoned Mine Lands (Inactive)
Belt	MT41U002_010	CARPENTER CREEK, headwaters to mouth (Belt Creek)	5	6.05	MILES	B-1	N	X	N	X	Arsenic Cadmium Copper Iron Lead Mercury Silver Zinc	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Belt	MT41U002_020	GALENA CREEK, headwaters to mouth (Dry Fork Belt Creek)	4A	3.47	MILES	B-1	N	X	N	X	Arsenic Cadmium Copper	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive) Mine Tailings

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030105 Belt

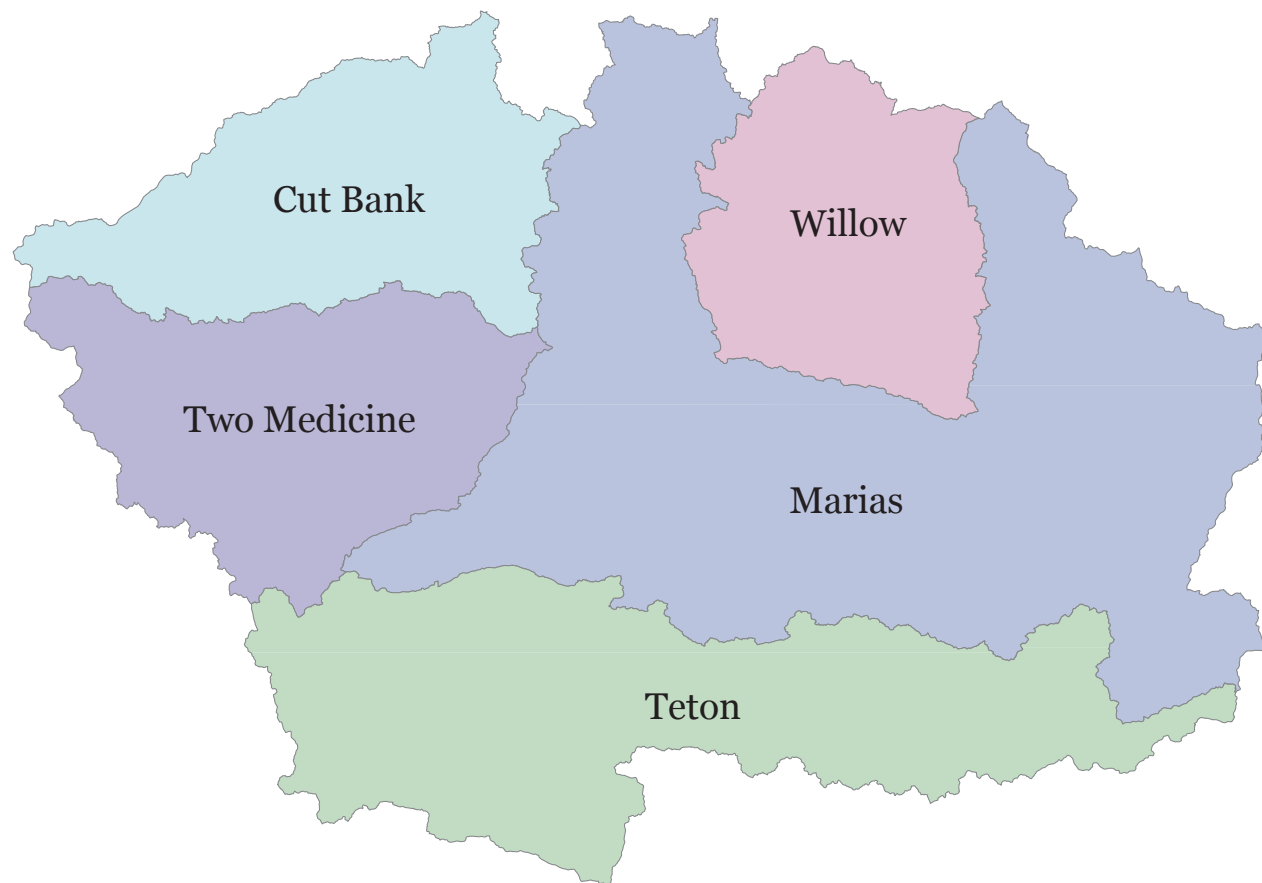
Watershed: Upper Missouri

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Belt	MT41U002_020	GALENA CREEK, headwaters to mouth (Dry Fork Belt Creek)	4A	3.47	MILES	B-1	N	X	N	X	Iron Lead Zinc	
Belt	MT41U002_030	DRY FORK BELT CREEK, headwaters to mouth (Belt Creek)	5	18.88	MILES	B-1	N	X	N	X	Arsenic Cadmium Copper Iron Lead Sedimentation/Siltation Zinc	Acid Mine Drainage Contaminated Sediments Highway/Road/Bridge Runoff (Non-construction Related) Mill Tailings Mine Tailings Post-development Erosion and Sedimentation
Belt	MT41U002_040	LITTLE BELT CREEK, three miles upstream to mouth (Belt Creek)	5	3.24	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat
Belt	MT41U002_050	BIG OTTER CREEK, headwaters to mouth (Belt Creek)	5	33.49	MILES	B-1	N	X	X	F	Alteration in stream-side or littoral vegetative covers Nitrate/Nitrite (Nitrite + Nitrate as N) Physical substrate habitat alterations Sedimentation/Siltation	Channelization Grazing in Riparian or Shoreline Zones Highways, Roads, Bridges, Infrastructure (New Construction)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

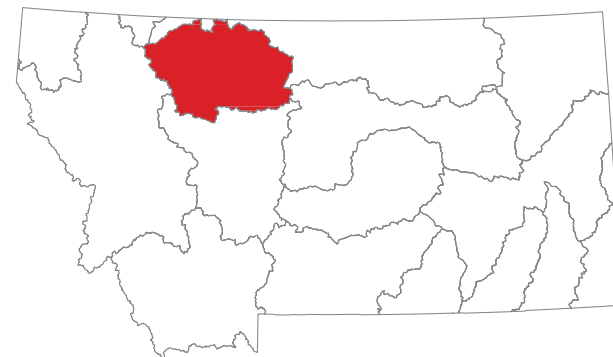
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Marias Sub-Major Basin

Lower Missouri River Basin

USGS HUC	HUC NAME
10030201	Two Medicine
10030202	Cut Bank
10030203	Marias
10030204	Willow
10030205	Teton



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10030201 Two Medicine

Watershed: Marias

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Cut Bank - Two Medicine	MT41M002_080	BIRCH CREEK, Blacktail Creek to mouth (Two Medicine River)	5	37.2	MILES	B-1	N	F	F	N	Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N)	Crop Production (Irrigated)
Cut Bank - Two Medicine	MT41M002_100	SOUTH FORK DUPUYER CREEK, Bob Marshall Wilderness boundary to mouth (Dupuyer Creek)	4C	7.36	MILES	B-1	N	F	F	F	Cause Unknown	Source Unknown
Cut Bank - Two Medicine	MT41M002_110	DUPUYER CREEK, confluence of South Fork Dupuyer Creek and Middle Fork Dupuyer Creek to the mouth (Birch Creek)	5	39.28	MILES	B-1	N	F	F	N	Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Sedimentation/Siltation Temperature	Agriculture Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Water Diversions

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030202 Cut Bank

Watershed: Marias

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Cut Bank - Two Medicine	MT41L001_010	OLD MAIDS COULEE, headwaters to mouth (Cutbank Creek)	5	17.6	MILES	B-1	N	N	F	N	Ammonia, Total	Crop Production (Crop Land or Dry Land)
											Chloride	Municipal Point Source Discharges
											Nitrate/Nitrite (Nitrite + Nitrate as N)	
											Phosphorus, Total	
											Specific Conductivity	
											Total Dissolved Solids (TDS)	
Cut Bank - Two Medicine	MT41L001_040	CUT BANK CREEK, Blackfeet Reservation boundary to mouth (Marias River)	5	21.07	MILES	B-2	N	F	F	N	Flow Regime Modification	Crop Production (Irrigated)
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Crop Production (Non-Irrigated)
											Temperature	Municipal Point Source Discharges
												Water Diversions

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030203 Marias

Watershed: Marias

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Marias - Willow	MT41P002_030	PONDERA COULEE, headwaters to mouth (Marias River)	5	135.95	MILES	B-2	N	X	X	X	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations Salinity	Agriculture
Marias - Willow	MT41P002_050	CORRAL CREEK, headwaters to mouth (Cottonwood Creek)	5	22.98	MILES	B-2	N	X	X	X	Phosphorus, Total	Agriculture

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030204 Willow

Watershed: Marias

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Marias - Willow	MT41P004_020	EAGLE CREEK, headwaters to mouth (Lake Elwell (Tiber Reservoir))	5	52.65	MILES	B-2	N	X	X	X	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations	Agriculture Grazing in Riparian or Shoreline Zones
Marias - Willow	MT41P005_010	OILMONT WETLAND	5	21	ACRES	B-2	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Flow Regime Modification	Highways, Roads, Bridges, Infrastructure (New Construction) Petroleum/natural Gas Activities

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030205 Teton

Watershed: Marias

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Sun	MT41K004_030	FREEZEOUT LAKE	5	3013.2	ACRES	B-2	N	N	N	N	Aquatic Plants (Macrophytes)	Agriculture
											Phosphorus, Total	Crop Production (Irrigated)
											Selenium	Source Unknown
											Sulfate	
											Total Dissolved Solids (TDS)	
Teton	MT41O001_010	TETON RIVER, Muddy Creek to mouth (Marias River)	4A	121.42	MILES	B-3	N	F	F	F	Flow Regime Modification	Agriculture
											Salinity	Channelization
											Sedimentation/Siltation	Crop Production (Irrigated)
											Sulfate	Highways, Roads, Bridges, Infrastructure (New Construction)
											Total Dissolved Solids (TDS)	Impacts from Hydrostructure Flow Regulation/modification Streambank Modifications/destabilization Water Diversions
Teton	MT41O001_020	TETON RIVER, Deep Creek to Muddy Creek	4A	43.92	MILES	B-2	N	N	F	F	Alteration in stream-side or littoral vegetative covers	Agriculture
											Flow Regime Modification	Channelization
											Salinity	Crop Production (Crop Land or Dry Land)
											Sulfate	Grazing in Riparian or Shoreline Zones
											Temperature	Impacts from Hydrostructure Flow Regulation/modification
											Total Dissolved Solids (TDS)	Municipal Point Source Discharges
Teton	MT41O001_030	TETON RIVER, North and South Forks to Deep Creek	4C	31.56	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers	Channelization
											Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification Streambank Modifications/destabilization Water Diversions
Teton	MT41O002_010	WILLOW CREEK, headwaters to mouth (Deep Creek)	4A	21.81	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Agriculture
											Habitat Alterations	Streambank Modifications/destabilization
											Sedimentation/Siltation	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10030205 Teton

Watershed: Marias

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Teton	MT41O002_020	DEEP CREEK, Willow Creek to mouth (Teton River)	4A	9.57	MILES	B-1	N	F	X	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Habitat Alterations Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Streambank Modifications/destabilization Water Diversions
Teton	MT41O002_042	BLACKLEAF CREEK, Cow Creek to mouth (Muddy Creek)	4C	24.27	MILES	B-2	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification	Highways, Roads, Bridges, Infrastructure (New Construction) Loss of Riparian Habitat
Teton	MT41O002_060	TETON SPRING CREEK, the city of Choteau to mouth (Teton River)	4A	4.92	MILES	B-1	N	F	X	N	Alteration in stream-side or littoral vegetative covers Habitat Alterations Nitrogen, Total Sedimentation/Siltation	Channelization Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Septage Disposal Source Unknown Streambank Modifications/destabilization
Teton	MT41O002_070	TETON SPRING CREEK, headwaters to city of Choteau	4A	9.67	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation Temperature	Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Water Diversions
Teton	MT41O004_020	PRIEST BUTTE LAKE	4A	446.5	ACRES	B-2	N	N	N	X	Salinity Selenium Sulfate Total Dissolved Solids (TDS)	Agriculture Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification

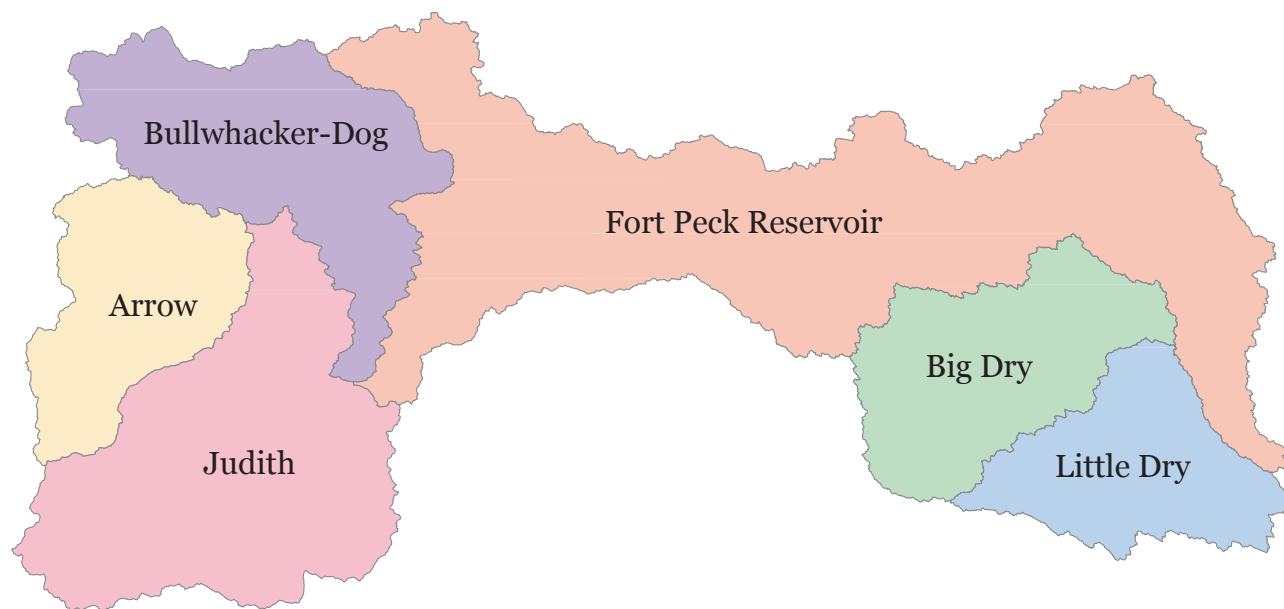
AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

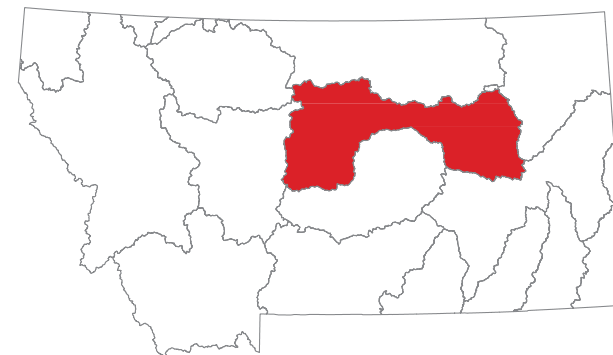
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.

Fort Peck Lake Sub-Major Basin

Missouri River Basin



USGS HUC	HUC NAME
10040101	Bullwhacker-Dog
10040102	Arrow
10040103	Judith
10040104	Fort Peck Reservoir
10040105	Big Dry
10040106	Little Dry



Montana Department of
Environmental Quality



Appendix A: Impaired Waters

HUC: 10040101 Bullwhacker-Dog

Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Missouri River	MT41T001_010	MISSOURI RIVER, the Marias River to Bullwhacker Creek	5	102.05	MILES	B-3	N	F	F	X	Alteration in stream-side or littoral vegetative covers Copper Lead Physical substrate habitat alterations	Agriculture Grazing in Riparian or Shoreline Zones Source Unknown
Bullwhacker - Dog	MT41T002_020	DOG CREEK, Cutbank Creek to mouth (Missouri River)	5	26.03	MILES	C-3	N	-	-	F	Nitrate/Nitrite (Nitrite + Nitrate as N) Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040102 Arrow

Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use			Cause Name *			Source Name *
							AqL	Ag	DW	Rec			
Judith - Arrow	MT41R001_010	COFFEE CREEK, headwaters to mouth (Arrow Creek)	5	52.13	MILES	C-3	N	-	-	F	Nitrate/Nitrite (Nitrite + Nitrate as N)		Animal Feeding Operations (NPS)
											Selenium		Crop Production (Crop Land or Dry Land)
											Total Dissolved Solids (TDS)		Natural Sources
Judith - Arrow	MT41R001_020	ARROW CREEK, Surprise Creek to mouth (Missouri River)	5	69.7	MILES	C-3	N	-	-	F	Iron		Natural Sources

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040103 Judith

Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Judith - Arrow	MT41S001_010	JUDITH RIVER, Big Spring Creek to mouth (Missouri River)	4C	72.02	MILES	B-2	N	F	F	X	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations	Agriculture Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Rangeland Grazing
Judith - Arrow	MT41S001_020	JUDITH RIVER, Ross Fork to Big Spring Creek	5	16.15	MILES	B-1	N	F	X	N	Alteration in stream-side or littoral vegetative covers Cause Unknown Nitrate/Nitrite (Nitrite + Nitrate as N) Physical substrate habitat alterations Sedimentation/Siltation	Animal Feeding Operations (NPS) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Natural Sources Source Unknown
Judith - Arrow	MT41S002_010	DRY WOLF CREEK, headwaters to mouth (Wolf Creek)	5	34.55	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Salinity	Crop Production (Non-Irrigated) Grazing in Riparian or Shoreline Zones
Judith - Arrow	MT41S002_020	WOLF CREEK, Dry Wolf Creek to mouth (Judith River)	5	45.29	MILES	C-3	N	-	-	F	Iron Selenium Total Dissolved Solids (TDS)	Crop Production (Crop Land or Dry Land) Crop Production with Subsurface Drainage Natural Sources Source Unknown
Judith - Arrow	MT41S002_030	WARM SPRING CREEK, 5 miles upstream to mouth (Judith River)	5	10.74	MILES	C-3	N	X	X	X	Alteration in stream-side or littoral vegetative covers Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Other anthropogenic substrate alterations Phosphorus, Total Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Streambank Modifications/destabilization
Judith - Arrow	MT41S002_050	SAGE CREEK, headwaters to mouth (Judith River)	5	70.08	MILES	C-3	N	-	-	F	Iron Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total	Animal Feeding Operations (NPS) Natural Sources Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040103 Judith

Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Judith - Arrow	MT41S002_070	ROSS FORK JUDITH RIVER, headwaters to mouth (Judith River)	5	64.23	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Biochemical oxygen demand (BOD) Nitrate/Nitrite (Nitrite + Nitrate as N) Sedimentation/Siltation	Channelization Confined Animal Feeding Operations - CAFOS (Point Source) Loss of Riparian Habitat Source Unknown
Judith - Arrow	MT41S002_080	SOUTH FORK JUDITH RIVER, headwaters to mouth	5	21.16	MILES	B-1	N	F	X	X	Physical substrate habitat alterations Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Site Clearance (Land Development or Redevelopment)
Judith - Arrow	MT41S002_100	LAST CHANCE CREEK, headwaters to mouth (Moccasin Creek)	5	6.17	MILES	C-3	N	-	-	X	Cyanide Iron Selenium Thallium	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Big Springs	MT41S004_010	BIG SPRING CREEK, East Fork Big Spring Creek to Casino Creek	4A	6.24	MILES	B-1	N	F	F	N	Polychlorinated Biphenyls (PCBs)	Aquaculture (Permitted) Contaminated Sediments
Big Springs	MT41S004_020	BIG SPRING CREEK, confluence of Casino Creek to mouth (Judith River)	4A	24.9	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Polychlorinated Biphenyls (PCBs) Sedimentation/Siltation	Agriculture Aquaculture (Permitted) Channelization Contaminated Sediments Dam or Impoundment Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Streambank Modifications/destabilization Unspecified Urban Stormwater
Big Springs	MT41S004_040	CASINO CREEK, headwaters to mouth (Big Spring Creek)	5	13.56	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Nitrogen, Total Phosphorus, Total	Animal Feeding Operations (NPS) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Site Clearance (Land Development or Redevelopment)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040103 Judith

Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Big Springs	MT41S004_052	COTTONWOOD CREEK, county road at T14N R18E S18 to mouth (Big Spring Creek)	5	19.97	MILES	B-1	N	N	X	N	Algae	Grazing in Riparian or Shoreline Zones
											Alteration in stream-side or littoral vegetative covers	Loss of Riparian Habitat
											Dissolved Oxygen	Source Unknown
											Flow Regime Modification	Water Diversions
											Nitrate/Nitrite (Nitrite + Nitrate as N)	
											Nitrogen, Total	
											Phosphorus, Total	
											Sedimentation/Siltation	
											Total Kjehldahl Nitrogen (TKN)	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040104 Fort Peck Reservoir

Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *	
AqL	Ag	DW	Rec										
Missouri River	MT40E001_010	MISSOURI RIVER, Bullwhacker Creek to Fort Peck Reservoir	5	49.02	MILES	B-3	N	F	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Copper	Agriculture Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)	
Landusky	MT40E002_010	MONTANA GULCH, headwaters to mouth (Rock Creek)	4A	2.04	MILES	C-3	N	-	N	X	Aluminum Arsenic Cadmium Cyanide Nickel Selenium Zinc pH	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive)	
Fort Peck Area Tributaries	MT40E002_022	ARMELLS CREEK, headwaters to Deer Creek	4A	19.34	MILES	C-3	N	-	N	X	Aluminum Cadmium Copper Iron Mercury Zinc pH	Impacts from Abandoned Mine Lands (Inactive)	
Fort Peck Area Tributaries	MT40E002_040	COW CREEK, Als Creek to mouth (Missouri River)	4A	34.16	MILES	C-3	N	-	N	F	Aluminum Arsenic Copper Iron Lead	Coal Mining Natural Sources	
Landusky	MT40E002_050	ALDER GULCH, headwaters to mouth (Ruby Creek), T26N R25E S16	4A	4.04	MILES	C-3	N	-	I	X	Alteration in stream-side or littoral vegetative covers Cadmium Copper Lead	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive) Mine Tailings	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040104 Fort Peck Reservoir

Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Landusky	MT40E002_050	ALDER GULCH, headwaters to mouth (Ruby Creek), T26N R25E S16	4A	4.04	MILES	C-3	N	-	I	X	Mercury Selenium Zinc pH	
Landusky	MT40E002_060	RUBY CREEK, Un-Named tributary T25N R25E S21 to mouth (CK Creek)	4A	4.61	MILES	C-3	N	-	N	X	Aluminum Cadmium Copper Lead Mercury Selenium Zinc pH	Impacts from Abandoned Mine Lands (Inactive)
Landusky	MT40E002_070	RUBY GULCH, headwaters to confluence of Alder Gulch, T25N R25E S21	5	2.91	MILES	C-3	N	-	N	X	Aluminum Arsenic Cadmium Chromium, Total Cyanide Lead Mercury Selenium Zinc pH	Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Landusky	MT40E002_090	ROCK CREEK, headwaters to mouth (Missouri River)	5	39.19	MILES	C-3	N	-	N	N	Alteration in stream-side or littoral vegetative covers Cadmium Copper Escherichia coli (E. Coli) Lead	Agriculture Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040104 Fort Peck Reservoir

Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *		Source Name *
AqL	Ag	DW	Rec										
Landusky	MT40E002_090	ROCK CREEK, headwaters to mouth (Missouri River)	5	39.19	MILES	C-3	N	-	N	N	Mercury		
											Selenium		
											Zinc		
											pH		
Landusky	MT40E002_100	MILL GULCH, headwaters to mouth (Rock Creek)	5	1.74	MILES	C-3	N	N	N	N	Alteration in stream-side or littoral vegetative covers		Natural Sources
											Arsenic		Rangeland Grazing
											Cadmium		Surface Mining
											Copper		
											Mercury		
											Nitrate/Nitrite (Nitrite + Nitrate as N)		
											Selenium		
											Zinc		
											pH		
Landusky	MT40E002_110	SULLIVAN CREEK, headwaters to mouth (Rock Creek)	5	.85	MILES	C-3	N	-	N	X	Alteration in stream-side or littoral vegetative covers		Open Pit Mining
											Cadmium		Subsurface (Hardrock) Mining
											Fish Passage Barrier		Surface Mining
											Flow Regime Modification		
											Iron		
											Lead		
											Nickel		
											Physical substrate habitat alterations		
											Selenium		
											Zinc		
Fort Peck Area Tributaries	MT40E002_130	FARGO COULEE, headwaters to mouth (Armells Creek)	4A	21.11	MILES	C-3	N	-	N	F	Alteration in stream-side or littoral vegetative covers		Natural Sources
											Aluminum		Source Unknown
											Arsenic		
											Nitrogen, Total		

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040104 Fort Peck Reservoir

Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Fort Peck Area Tributaries	MT40E002_130	FARGO COULEE, headwaters to mouth (Armells Creek)	4A	21.11	MILES	C-3	N	-	N	F	Phosphorus, Total	
Redwater	MT40E003_010	TIMBER CREEK, headwaters to mouth (Big Dry Creek arm of Fort Peck Res)	4A	89.42	MILES	C-3	N	-	-	F	Nitrogen, Total	Agriculture
											Phosphorus, Total	Natural Sources
											Total Kjehldahl Nitrogen (TKN)	Source Unknown
Redwater	MT40E003_020	NELSON CREEK, headwaters to mouth (Big Dry Creek arm of Fort Peck Res)	5	36.37	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers	Agriculture
											Cadmium	Grazing in Riparian or Shoreline Zones
											Copper	Source Unknown
											Nitrate	
											Nitrogen, Total	
											Phosphorus, Total	
											Sulfate	
											Total Dissolved Solids (TDS)	
Missouri River	MT40E004_010	FORT PECK RESERVOIR	5	233295.8 ACRES	B-3	N	X	N	F	Lead	Atmospheric Deposition - Toxics	
										Mercury	Historic Bottom Deposits (Not Sediment)	
											Impacts from Abandoned Mine Lands (Inactive)	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040105 Big Dry

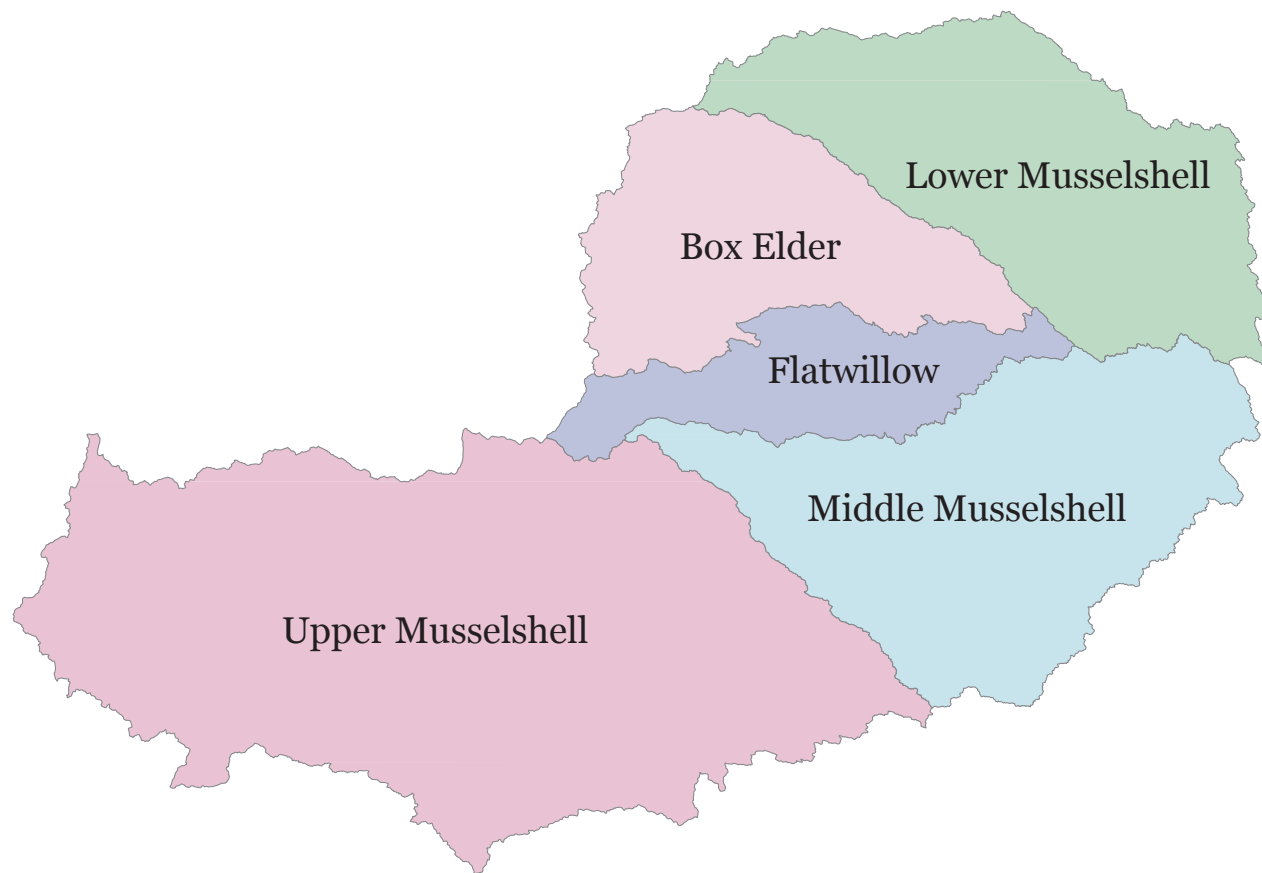
Watershed: Fort Peck Lake

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Big and Little Dry	MT40D001_010	BIG DRY CREEK, Steves Fork to mouth (Fort Peck Reservoir)	5	98.62	MILES	C-3	N	-	-	N	Alteration in stream-side or littoral vegetative covers Ammonia, Un-ionized Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total	Agriculture Municipal Point Source Discharges

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

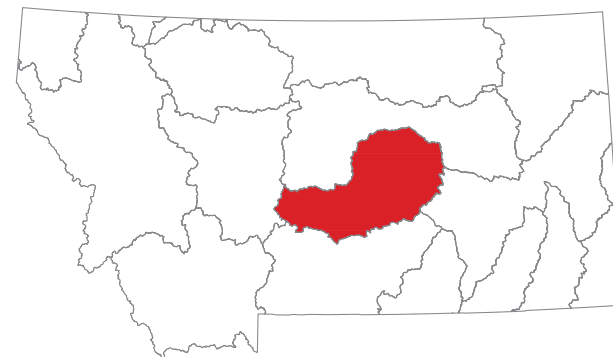
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Musselshell Sub-Major Basin

Lower Missouri River Basin

USGS HUC	HUC NAME
10040201	Upper Musselshell
10040202	Middle Musselshell
10040203	Flatwillow
10040204	Box Elder
10040205	Lower Musselshell



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10040201 Upper Musselshell

Watershed: Musselshell

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Upper - Middle Musselshell	MT40A001_010	MUSSELSHELL RIVER, North & South Fork confluence to Deadmans Basin Diversion Canal	5	55.3	MILES	B-2	N	X	F	N	Alteration in stream-side or littoral vegetative covers	Agriculture
											Escherichia coli (E. Coli)	Channelization
											Flow Regime Modification	Crop Production (Crop Land or Dry Land)
											Habitat Alterations	Crop Production (Irrigated)
											Iron	Grazing in Riparian or Shoreline Zones
Upper - Middle Musselshell	MT40A001_020	MUSSELSHELL RIVER, Deadmans Basin Supply Canal to HUC boundary near Roundup	5	94.49	MILES	C-3	N	-	-	N		Impacts from Abandoned Mine Lands (Inactive)
												Impacts from Hydrostructure Flow Regulation/modification
												Municipal Point Source Discharges
												Natural Sources
												On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
Upper - Middle Musselshell	MT40A002_011	NORTH FORK MUSSELSHELL RIVER, headwaters to Bair Reservoir	4C	13.8	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers	Agriculture
											Escherichia coli (E. Coli)	Channelization
											Flow Regime Modification	Crop Production (Crop Land or Dry Land)
											Habitat Alterations	Crop Production (Irrigated)
											Iron	Grazing in Riparian or Shoreline Zones
Upper - Middle Musselshell	MT40A002_012	NORTH FORK MUSSELSHELL RIVER, Bair Reservoir to confluence with South Fork Musselshell River	5	24.31	MILES	B-1	N	X	F	N	Lead	Impacts from Abandoned Mine Lands (Inactive)
											Sediment	Impacts from Hydrostructure Flow Regulation/modification
												Municipal Point Source Discharges
												Natural Sources
												On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
Upper - Middle Musselshell	MT40A002_011	NORTH FORK MUSSELSHELL RIVER, headwaters to Bair Reservoir	4C	13.8	MILES	B-1	N	X	X	N	Chlorophyll-a	Grazing in Riparian or Shoreline Zones
												Natural Sources
Upper - Middle Musselshell	MT40A002_012	NORTH FORK MUSSELSHELL RIVER, Bair Reservoir to confluence with South Fork Musselshell River	5	24.31	MILES	B-1	N	X	F	N	Chlorophyll-a	Grazing in Riparian or Shoreline Zones
											Escherichia coli (E. Coli)	Impacts from Abandoned Mine Lands (Inactive)
											Iron	Impacts from Hydrostructure Flow Regulation/modification

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040201 Upper Musselshell

Watershed: Musselshell

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Upper - Middle Musselshell	MT40A002_012	NORTH FORK MUSSELSHELL RIVER, Bair Reservoir to confluence with South Fork Musselshell River	5	24.31	MILES	B-1	N	X	F	N	Phosphorus, Total	Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
Upper - Middle Musselshell	MT40A002_030	TRAIL CREEK, headwaters to mouth (North Fork Musselshell River)	5	10.1	MILES	B-1	N	X	F	N	Chlorophyll-a Phosphorus, Total Sediment	Agriculture Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification
Upper - Middle Musselshell	MT40A002_040	MILL CREEK, headwaters to mouth (North Fork Musselshell River)	5	4.81	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Sediment	Grazing in Riparian or Shoreline Zones Silviculture Activities Unspecified Unpaved Road or Trail
Careless Creek	MT40A002_050	CARELESS CREEK, confluence with Swimming Woman Creek to mouth (Musselshell River)	5	20.8	MILES	C-3	N	-	-	I	Alteration in stream-side or littoral vegetative covers Habitat Alterations Iron	Channel Erosion/Incision from Upstream Hydromodifications Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Natural Sources Streambank Modifications/destabilization
Careless Creek	MT40A002_051	CARELESS CREEK, headwaters to confluence with Swimming Woman Creek	4C	47.82	MILES	B-1	N	X	F	I	Alteration in stream-side or littoral vegetative covers	Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones
Upper - Middle Musselshell	MT40A002_070	FISH CREEK, headwaters to mouth (Musselshell River)	5	98.64	MILES	C-3	N	-	-	N	Alteration in stream-side or littoral vegetative covers Escherichia coli (E. Coli) Flow Regime Modification Habitat Alterations Iron Nitrate/Nitrite (Nitrite + Nitrate as N)	Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Rangeland Grazing Unspecified Unpaved Road or Trail Water Diversions
Upper - Middle Musselshell	MT40A002_080	PAINTED ROBE CREEK, headwaters to mouth (Musselshell River)	5	40.92	MILES	C-3	N	N	-	X	Nitrogen, Total Salinity	Crop Production (Non-Irrigated) Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040201 Upper Musselshell

Watershed: Musselshell

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Upper - Middle Musselshell	MT40A002_080	PAINTED ROBE CREEK, headwaters to mouth (Musselshell River)	5	40.92	MILES	C-3	N	N	-	X	Sulfate	Impacts from Hydrostructure Flow Regulation/modification
Upper - Middle Musselshell	MT40A002_090	HALF BREED CREEK, headwaters to mouth (Musselshell River)	5	18.19	MILES	C-3	N	-	-	N	Alteration in stream-side or littoral vegetative covers	Channelization
											Escherichia coli (E. Coli)	Dam or Impoundment
											Flow Regime Modification	Grazing in Riparian or Shoreline Zones
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Highway/Road/Bridge Runoff (Non-construction Related)
												Livestock (Grazing or Feeding Operations)
												On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
												Unspecified Unpaved Road or Trail
Upper - Middle Musselshell	MT40A002_110	MILLER CREEK, confluence of East and West Forks Miller Creek to mouth (Little Elk Creek)	5	12.04	MILES	B-1	N	X	X	X	Sediment	Crop Production (Crop Land or Dry Land)
												Grazing in Riparian or Shoreline Zones
												Impacts from Hydrostructure Flow Regulation/modification
												Unspecified Unpaved Road or Trail
Upper - Middle Musselshell	MT40A002_120	AMERICAN FORK, confluence of Middle and North Forks American Fork to mouth (Musselshell River)	5	39.42	MILES	B-1	I	X	F	N	Escherichia coli (E. Coli)	Agriculture
												Grazing in Riparian or Shoreline Zones
												On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
Upper - Middle Musselshell	MT40A002_130	BIG COULEE CREEK, confluence of North and South Forks Big Coulee Creek to mouth (Musselshell River)	5	59.52	MILES	C-3	N	-	-	N	Escherichia coli (E. Coli)	Agriculture
											Iron	Grazing in Riparian or Shoreline Zones
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Natural Sources
											Nitrogen, Total	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
											Selenium	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040202 Middle Musselshell

Watershed: Musselshell

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Upper - Middle Musselshell	MT40C001_010	MUSSELSHELL RIVER, HUC boundary near Roundup to Flatwillow Creek	5	114.6	MILES	C-3	N	-	-	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Habitat Alterations Iron	Agriculture Channelization Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Impacts from Hydrostructure Flow Regulation/modification Natural Sources Streambank Modifications/destabilization
Upper - Middle Musselshell	MT40C002_010	NORTH WILLOW CREEK, headwaters to mouth (Musselshell River)	5	117.27	MILES	C-3	N	N	-	X	Alteration in stream-side or littoral vegetative covers Iron Nitrogen, Total Phosphorus, Total Salinity Sedimentation/Siltation Sulfate	Crop Production (Non-Irrigated) Dam or Impoundment Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification Natural Sources Source Unknown Streambank Modifications/destabilization Unspecified Unpaved Road or Trail

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040203 Flatwillow

Watershed: Musselshell

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Flatwillow - Box Elder	MT40B001_021	FLATWILLOW CREEK, headwaters to Highway 87 bridge	5	40.11	MILES	B-2	N	X	X	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Iron Sediment	Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification Natural Sources Streambank Modifications/destabilization Unspecified Unpaved Road or Trail
Flatwillow - Box Elder	MT40B001_022	FLATWILLOW CREEK, Highway 87 bridge to mouth (Musselshell River)	5	99.88	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Iron Selenium	Agriculture Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Natural Sources
Flatwillow - Box Elder	MT40B001_040	NORTH FORK FLATWILLOW CREEK, headwaters to confluence with South Fork	5	27.56	MILES	B-2	N	X	X	X	Sediment	Agriculture Loss of Riparian Habitat Rangeland Grazing

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040204 Box Elder

Watershed: Musselshell

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Flatwillow - Box Elder	MT40B002_001	BOX ELDER CREEK, headwaters to mouth	5	139.16	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers Iron	Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Natural Sources Streambank Modifications/destabilization
Flatwillow - Box Elder	MT40B002_010	McDONALD CREEK, North and South Forks to mouth (Box Elder Creek)	5	89.18	MILES	C-3	N	N	-	N	Escherichia coli (E. Coli) Iron Salinity	Crop Production (Irrigated) Crop Production (Non-Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
Flatwillow - Box Elder	MT40B002_020	FORDS CREEK, headwaters in Chicago Gulch to East Fork Fords Creek	4A	2.98	MILES	C-3	N	-	N	X	Arsenic Cadmium Lead Zinc pH	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive)
Flatwillow - Box Elder	MT40B002_021	FORDS CREEK, East Fork Fords Creek to mouth (Box Elder Creek)	5	69.84	MILES	C-3	N	-	-	N	Alteration in stream-side or littoral vegetative covers Escherichia coli (E. Coli) Iron	Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Streambank Modifications/destabilization
Flatwillow - Box Elder	MT40B002_030	COLLAR GULCH CREEK, headwaters to mouth (Fords Creek)	4A	6.38	MILES	C-3	N	-	N	X	Aluminum Arsenic Cadmium Copper Lead	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040204 Box Elder

Watershed: Musselshell

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Flatwillow - Box Elder	MT40B002_030	COLLAR GULCH CREEK, headwaters to mouth (Fords Creek)	4A	6.38	MILES	C-3	N	-	N	X		Zinc pH	
Flatwillow - Box Elder	MT40B002_040	CHIPPEWA CREEK, headwaters to confluence with Manitoba Gulch	4A	3.75	MILES	C-3	N	-	N	X		Alteration in stream-side or littoral vegetative covers Antimony Arsenic Cyanide Iron Mercury Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Heap-leach Extraction Mining Mine Tailings
Flatwillow - Box Elder	MT40B002_070	SOUTH FORK McDONALD CREEK, headwaters to confluence with North Fork McDonald Creek	5	50.29	MILES	C-3	N	-	-	N		Alteration in stream-side or littoral vegetative covers Escherichia coli (E. Coli) Iron	Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Streambank Modifications/destabilization

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10040205 Lower Musselshell

Watershed: Musselshell

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Musselshell	MT40C003_010	MUSSELSHELL RIVER, Flatwillow Creek to Fort Peck Reservoir	5	75.94	MILES	C-3	N	-	-	N	Alteration in stream-side or littoral vegetative covers	Channelization
											Escherichia coli (E. Coli)	Crop Production (Crop Land or Dry Land)
											Flow Regime Modification	Grazing in Riparian or Shoreline Zones
											Habitat Alterations	Impacts from Abandoned Mine Lands (Inactive)
											Iron	Impacts from Hydrostructure Flow Regulation/modification
												Municipal Point Source Discharges
												Natural Sources
												On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
	Streambank Modifications/destabilization											
Lower Musselshell	MT40C004_030	BLOOD CREEK, Dovetail County Road to mouth (Musselshell River)	4C	57.36	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
												Natural Sources

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

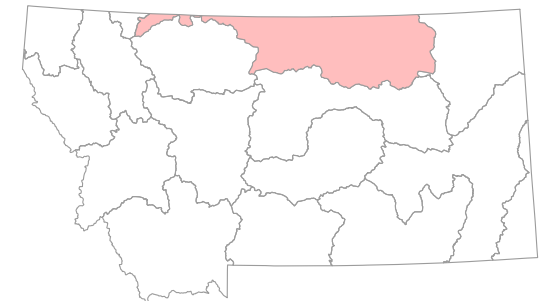
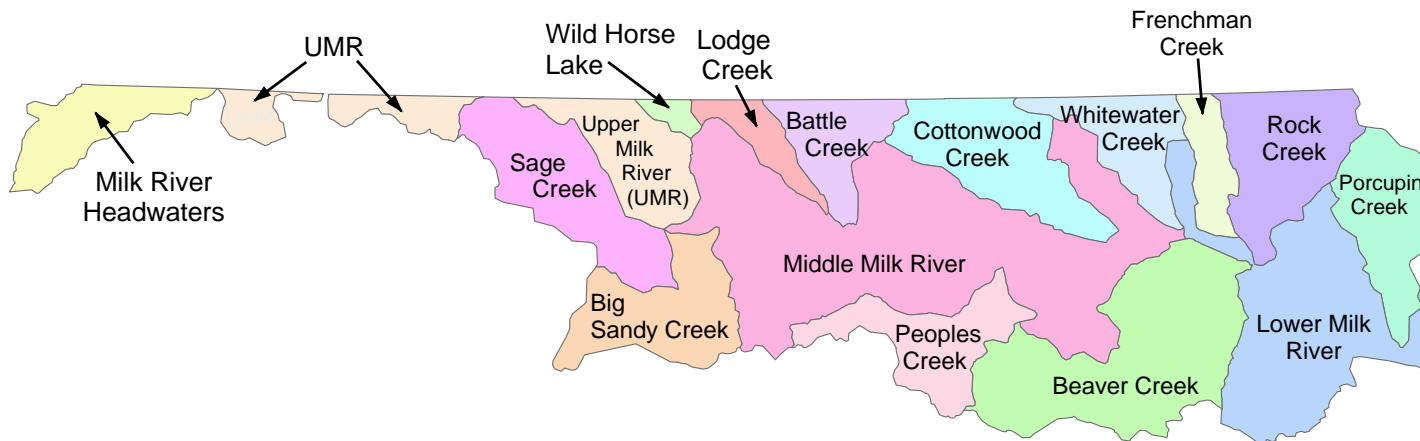
F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.

Milk Sub-Major Basin

Missouri River Basin

USGS HUC	HUC NAME
10050001	Milk River Headwaters
10050002	Upper Milk River
10050003	Wild Horse Lake
10050004	Middle Milk River
10050005	Big Sandy Creek
10050006	Sage Creek
10050007	Lodge Creek
10050008	Battle Creek
10050009	Peoples Creek
10050010	Cottonwood Creek
10050011	Whitewater Creek
10050012	Lower Milk River
10050013	Frenchman Creek
10050014	Beaver Creek (Milk R)
10050015	Rock Creek
10050016	Porcupine Creek



Montana Department of
Environmental Quality



Appendix A: Impaired Waters

HUC: 10050002 Upper Milk

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Upper Milk	MT40F003_010	MILK RIVER, Canada border to Fresno Reservoir	5	39.66	MILES	B-3	N	F	N	F	Copper	Natural Sources
											Flow Regime Modification	Source Unknown
											Iron	Water Diversions
											Lead	
Upper Milk	MT40F005_010	FRESNO RESERVOIR	4C	5007	ACRES	B-3	N	F	X	X	Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification
											Physical substrate habitat alterations	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050004 Middle Milk

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *		Source Name *
AqL	Ag	DW	Rec										
Middle Milk and Tributaries	MT40J001_011	MILK RIVER, Fresno Dam to Thirtymile Creek	5	113.28	MILES	B-3	X	F	N	X	Mercury		Agriculture Dam or Impoundment Natural Sources
Middle Milk and Tributaries	MT40J001_012	MILK RIVER, Thirtymile Creek to Dodson Creek	5	58.19	MILES	B-3	X	F	N	X	Mercury		Agriculture Dam or Impoundment Natural Sources
Middle Milk and Tributaries	MT40J001_013	MILK RIVER, Dodson Creek to Whitewater Creek	5	102.75	MILES	B-3	X	F	N	X	Mercury		Agriculture Dam or Impoundment Natural Sources
Middle Milk and Tributaries	MT40J001_020	MILK RIVER, Whitewater Creek to Beaver Creek	5	38.24	MILES	B-3	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Iron Nitrate/Nitrite (Nitrite + Nitrate as N)		Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Natural Sources Rangeland Grazing Water Diversions
Middle Milk and Tributaries	MT40J002_010	BEAVER CREEK, Beaver Creek Reservoir to mouth (Milk River)	5	24.92	MILES	B-1	N	F	N	F	Flow Regime Modification Iron Lead Mercury Sedimentation/Siltation Temperature		Channelization Natural Sources Source Unknown
Middle Milk and Tributaries	MT40J002_020	BULLHOOK CREEK, headwaters to the Bullhook Dam, T32N R16E S16	5	24.9	MILES	B-3	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Sedimentation/Siltation Temperature		Habitat Modification - other than Hydromodification Natural Sources Residential Districts Source Unknown Streambank Modifications/destabilization
Middle Milk and Tributaries	MT40J002_030	LITTLE BOXELDER CREEK, headwaters to mouth (Milk River)	5	50.17	MILES	B-1	N	F	F	F	Nitrate/Nitrite (Nitrite + Nitrate as N)		Natural Sources

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050004 Middle Milk

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Middle Milk and Tributaries	MT40J002_030	LITTLE BOXELDER CREEK, headwaters to mouth (Milk River)	5	50.17	MILES	B-1	N	F	F	F	Nitrogen, Total	Rangeland Grazing
											Phosphorus, Total	Source Unknown
											Sedimentation/Siltation	
											Temperature	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050005 Big Sandy

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Big Sandy - Sage	MT40H001_010	BIG SANDY CREEK, Lonesome Lake Coulee to mouth (Milk River)	5	62.93	MILES	B-3	N	F	N	X	Mercury	Agriculture
											Salinity	Atmospheric Deposition - Nitrogen
											Sulfate	Crop Production (Crop Land or Dry Land)
											Total Dissolved Solids (TDS)	Natural Sources
												Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050006 Sage

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Big Sandy - Sage	MT40G001_011	SAGE CREEK, Laird Creek to the confluence of Russell Creek, T36N R9E S32	4A	29.36	MILES	B-1	N	N	N	F	Alteration in stream-side or littoral vegetative covers	Agriculture
											Salinity	Crop Production (Crop Land or Dry Land)
											Sulfate	Crop Production (Irrigated)
											Total Dissolved Solids (TDS)	Crop Production (Non-Irrigated)
											Natural Sources	
Big Sandy - Sage	MT40G001_012	SAGE CREEK, Confluence of Russell Creek T36N R9E S32 to the mouth (Big Sandy Creek)	4A	92.3	MILES	B-3	N	N	N	F	Alteration in stream-side or littoral vegetative covers	Crop Production (Crop Land or Dry Land)
											Salinity	Crop Production (Irrigated)
											Sulfate	Crop Production (Non-Irrigated)
											Total Dissolved Solids (TDS)	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050007 Lodge

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Middle Milk and Tributaries	MT40J003_010	LODGE CREEK, Canadian border to mouth (Milk River)	5	83.08	MILES	B-3	N	N	N	F	Dissolved Oxygen	Agriculture
											Flow Regime Modification	Dam or Impoundment
											Mercury	Golf Courses
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Residential Districts
											Nitrogen, Total	Source Unknown
											Phosphorus, Total	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050008 Battle

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Middle Milk and Tributaries	MT40J004_010	BATTLE CREEK, Canadian border to mouth (Milk River)	5	74.33	MILES	B-3	N	F	F	F	Alteration in stream-side or littoral vegetative covers Cause Unknown Chlorophyll-a Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Rangeland Grazing

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050009 Peoples

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Middle Milk and Tributaries	MT40I001_020	PEOPLES CREEK, headwaters to Fort Belknap Reservation boundary	5	57.19	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Mercury Nitrate/Nitrite (Nitrite + Nitrate as N) Phosphorus, Total Temperature	Grazing in Riparian or Shoreline Zones Source Unknown
Landusky	MT40I001_030	SOUTH BIG HORN CREEK, headwaters to Fort Belknap Reservation boundary	4A	1.36	MILES	B-1	N	F	N	X	Aluminum Arsenic Cadmium Iron Nickel Zinc	Acid Mine Drainage Impacts from Abandoned Mine Lands (Inactive) Mine Tailings Surface Mining
Landusky	MT40I001_040	KING CREEK, headwaters to Fort Belknap Reservation boundary	5	.9	MILES	B-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Lead Physical substrate habitat alterations Selenium	Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Landusky	MT40I001_050	LODGE POLE CREEK, headwaters to Fort Belknap Reservation boundary	4A	4.34	MILES	B-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers Cadmium Cause Unknown Mercury	Source Unknown Subsurface (Hardrock) Mining Surface Mining
Landusky	MT40I002_010	SWIFT GULCH CREEK, Headwaters to mouth (South Big Horn Creek), T25N R24E S10	4A	1.73	MILES	B-1	N	F	N	F	Aluminum Arsenic Cadmium Copper Cyanide	Impacts from Abandoned Mine Lands (Inactive) Natural Sources Open Pit Mining

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050009 Peoples

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Landusky	MT40I002_010	SWIFT GULCH CREEK, Headwaters to mouth (South Big Horn Creek), T25N R24E S10	4A	1.73	MILES	B-1	N	F	N	F	Iron Nickel Thallium Zinc pH	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050010 Cottonwood

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Middle Milk and Tributaries	MT40J005_020	COTTONWOOD CREEK, Black Coulee to mouth (Milk River)	5	57.36	MILES	B-3	N	F	F	F	Alteration in stream-side or littoral vegetative covers Iron Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Natural Sources Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050011 Whitewater

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Middle Milk and Tributaries	MT40K001_010	WHITEWATER CREEK, Canadian border to mouth (Milk River)	5	67.63	MILES	B-3	F	F	N	F	Mercury	Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050012 Lower Milk

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Milk	MT40O001_010	MILK RIVER, Beaver Creek to mouth (Missouri River)	5	134.52	MILES	B-3	X	F	N	N	Escherichia coli (E. Coli)	Agriculture
											Lead	Dam or Impoundment
											Mercury	Source Unknown
Lower Milk	MT40O002_020	BUGGY CREEK, headwaters to mouth (Milk River)	5	46.53	MILES	B-3	N	F	F	F	Iron	Natural Sources
Lower Milk	MT40O002_031	WILLOW CREEK, headwaters to Halfpint Reservoir, T25N R35E S26	5	10.38	MILES	B-3	N	F	X	X	Alteration in stream-side or littoral vegetative covers	Agriculture
											Flow Regime Modification	Dam or Impoundment
											Physical substrate habitat alterations	Grazing in Riparian or Shoreline Zones
											Sedimentation/Siltation	Impacts from Hydrostructure Flow Regulation/modification Streambank Modifications/destabilization
Lower Milk	MT40O002_033	WILLOW CREEK, Halfpint Reservoir to mouth (Milk River), T28N R40E S29	5	76.13	MILES	B-3	N	F	X	X	Alteration in stream-side or littoral vegetative covers	Agriculture
											Flow Regime Modification	Grazing in Riparian or Shoreline Zones
											Physical substrate habitat alterations	
											Sedimentation/Siltation	
Lower Milk	MT40O002_040	BEAVER CREEK, confluence of Little Beaver Creek and South Fork Beaver Creek to mouth (Willow Creek)	5	16.53	MILES	B-3	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Dam or Impoundment
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Natural Sources
											Sediment	Rangeland Grazing
Lone Tree Creek	MT40O002_050	LONE TREE CREEK, headwaters to mouth at Willow Creek	4A	22.22	MILES	B-3	N	X	X	X	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
											Nitrogen, Total	Impacts from Hydrostructure Flow Regulation/modification Streambank Modifications/destabilization

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050013 Frenchman

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Middle Milk and Tributaries	MT40L001_010	FRENCHMAN CREEK, Canadian border to mouth (Milk River)	4C	82.5	MILES	B-3	N	N	F	X	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Flow Regime Modification	Agriculture Dam or Impoundment Grazing in Riparian or Shoreline Zones Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050014 Beaver

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Landusky	MT40M001_011	BEAVER CREEK, headwaters to Fort Belknap Reservation boundary	4A	5.4	MILES	B-3	N	F	N	F	Lead	Impacts from Abandoned Mine Lands (Inactive) Source Unknown
Beaver	MT40M001_013	BEAVER CREEK, Fort Belknap Reservation boundary to Big Warm Creek	5	55.12	MILES	B-3	N	F	N	F	Mercury Phosphorus, Total	Source Unknown
Beaver	MT40M001_014	BEAVER CREEK, Big Warm Creek to Un-Named tributary, T30N R32E S32	5	97.99	MILES	B-3	N	F	N	F	Mercury Phosphorus, Total	Source Unknown
Beaver	MT40M001_020	BEAVER CREEK, Un-named tributary at T30N R32E S32 to mouth (Milk River)	5	86.86	MILES	B-3	N	F	N	X	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Uranium	Agriculture Source Unknown
Beaver	MT40M002_010	FLAT CREEK, headwaters to mouth (Beaver Creek), T27N R32E S35	5	36.88	MILES	B-3	N	N	N	F	Arsenic Cadmium Copper Dissolved Oxygen Iron Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sediment Zinc	Natural Sources Source Unknown
Beaver	MT40M002_020	LARB CREEK, headwaters to mouth (Beaver Creek)	5	76.67	MILES	B-3	N	F	F	F	Alteration in stream-side or littoral vegetative covers Copper Dissolved Oxygen Lead Nitrogen, Total	Agriculture Animal Feeding Operations (NPS) Natural Sources Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050014 Beaver

Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Beaver	MT40M002_020	LARB CREEK, headwaters to mouth (Beaver Creek)	5	76.67	MILES	B-3	N	F	F	F	Phosphorus, Total	
Beaver	MT40M002_030	BIG WARM CREEK, Fort Belknap Reservation boundary to mouth (Beaver Creek)	5	57.08	MILES	B-3	N	N	F	F	Alteration in stream-side or littoral vegetative covers	Agriculture
											Flow Regime Modification	Dam or Impoundment
											Phosphorus, Total	Grazing in Riparian or Shoreline Zones
											Physical substrate habitat alterations	Streambank Modifications/destabilization
											Salinity	
											Sedimentation/Siltation	
Beaver	MT40M003_010	LAKE BOWDOIN	5	3932.2	ACRES	B-3	N	N	N	X	Salinity	Agriculture
											Selenium	Crop Production (Irrigated)
												Dam or Impoundment
Beaver	MT40M003_020	NELSON RESERVOIR	5	4112.5	ACRES	B-3	N	F	X	N	Flow Regime Modification	Crop Production (Irrigated)
											Phosphorus, Total	Impacts from Hydrostructure Flow Regulation/modification

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10050016 Porcupine

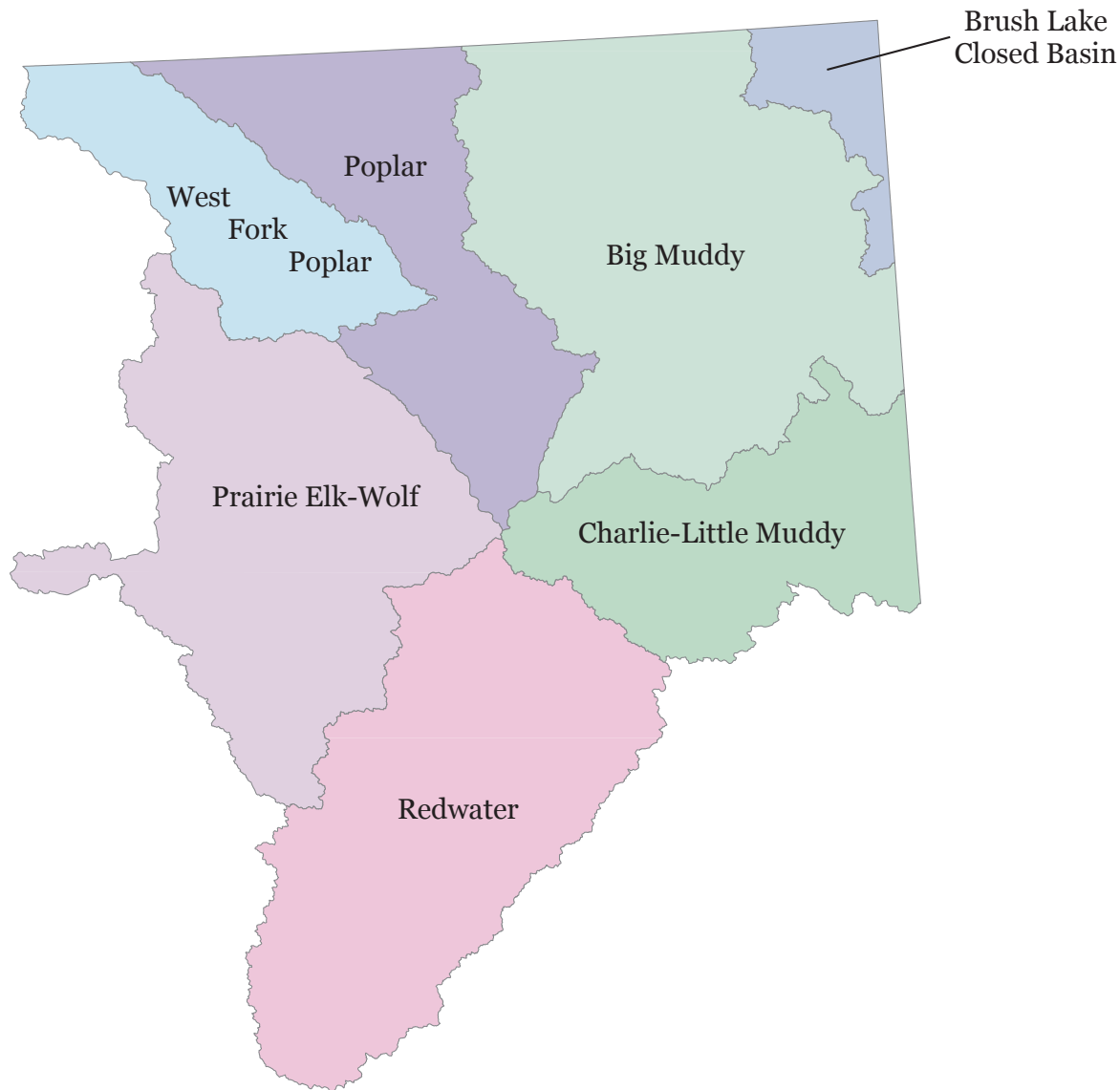
Watershed: Milk

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Lower Milk	MT40O003_010	PORCUPINE CREEK, confluence of West and Middle Forks to mouth (Milk River)	5	49.29	MILES	B-3	N	N	F	X	Nitrogen, Total Phosphorus, Total Salinity	Crop Production (Non-Irrigated)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

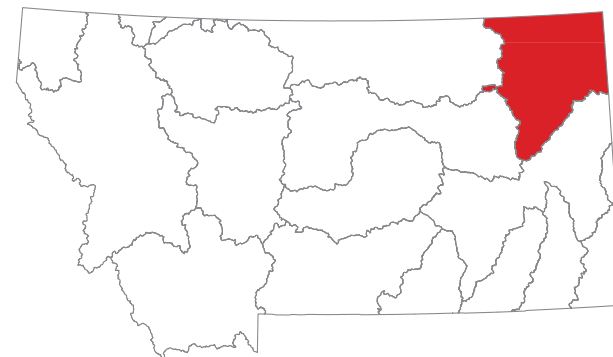
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Missouri-Poplar Sub-Major Basin

Lower Missouri River Basin

USGS HUC	HUC NAME
10060007	Brush Lake Closed Basin
10060001	Prairie Elk-Wolf
10060002	Redwater
10060003	Poplar
10060004	West Fork Poplar
10060005	Charlie-Little Muddy
10060006	Big Muddy



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10060001 Prairie Elk-Wolf

Watershed: Missouri-Poplar

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Lower Missouri	MT40S001_011	MISSOURI RIVER, Fort Peck Dam to Milk River	5	9.79	MILES	B-2	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Temperature	Impacts from Hydrostructure Flow Regulation/modification
Lower Missouri	MT40S001_012	MISSOURI RIVER, Milk River to Poplar River	5	81.86	MILES	B-3	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Temperature	Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat
Redwater	MT40S002_010	PRAIRIE ELK CREEK, East and Middle Forks to mouth (Missouri River)	4A	38.87	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Total Kjeldahl Nitrogen (TKN)	Agriculture Grazing in Riparian or Shoreline Zones
Redwater	MT40S002_030	SAND CREEK, confluence of East and West Forks to mouth (Missouri River)	5	19.82	MILES	C-3	N	-	-	X	Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation Total Kjeldahl Nitrogen (TKN)	Agriculture Crop Production (Non-Irrigated) Rangeland Grazing

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10060002 Redwater

Watershed: Missouri-Poplar

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use			Cause Name *			Source Name *
AqL	Ag	DW	Rec										
Redwater	MT40P001_012	REDWATER RIVER, Hell Creek to Buffalo Springs Creek	4A	7.67	MILES	C-3	N	-	-	F	Cause Unknown		Municipal Point Source Discharges
											Nitrogen, Total		Natural Sources
											Phosphorus, Total		On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
Redwater	MT40P001_014	REDWATER RIVER, Pasture Creek to mouth (Missouri River)	4C	60.45	MILES	C-3	N	-	-	F	Alteration in stream-side or littoral vegetative covers		Natural Sources
											Physical substrate habitat alterations		Rangeland Grazing
Redwater	MT40P002_010	EAST REDWATER CREEK, headwaters to mouth (Redwater River)	5	50.61	MILES	C-3	N	-	-	N	Chlorophyll-a		Agriculture
											Nitrate/Nitrite (Nitrite + Nitrate as N)		Source Unknown
											Nitrogen, Total		
											Phosphorus, Total		
											Sedimentation/Siltation		
											Specific Conductivity		
											Sulfate		
											Total Dissolved Solids (TDS)		
											Total Kjeldahl Nitrogen (TKN)		
Redwater	MT40P002_020	HORSE CREEK, headwaters to mouth at Redwater River near town of Circle	4A	32.43	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers		Agriculture
											Nitrogen, Total		Crop Production (Non-Irrigated)
											Phosphorus, Total		Rangeland Grazing
											Physical substrate habitat alterations		Source Unknown
											Salinity		
Redwater	MT40P002_030	PASTURE CREEK, headwaters to mouth at Redwater River	4A	39.72	MILES	C-3	N	-	-	F	Nitrogen, Total		Agriculture
											Total Kjeldahl Nitrogen (TKN)		Animal Feeding Operations (NPS)
													Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10060003 Poplar

Watershed: Missouri-Poplar

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Missouri	MT40Q001_011	POPLAR RIVER, Confluence of East & Middle Forks to Fort Peck Reservation boundary, T33N R48E S12	5	29.94	MILES	B-2	N	F	F	N	Escherichia coli (E. Coli)	Natural Sources
											Sedimentation/Siltation	Rangeland Grazing
											Temperature	Source Unknown
Lower Missouri	MT40Q001_012	MIDDLE FORK POPLAR RIVER, headwater (confluence of Lost Child & Goose Creeks) to the mouth (Poplar River)	5	36.46	MILES	B-2	N	F	F	N	Escherichia coli (E. Coli)	Natural Sources
											Sedimentation/Siltation	Rangeland Grazing
											Temperature	Source Unknown
Lower Missouri	MT40Q002_010	BUTTE CREEK, headwaters to mouth (Poplar River)	5	41.95	MILES	B-2	N	N	F	F	Iron	Crop Production (Crop Land or Dry Land)
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Natural Sources
											Nitrogen, Total	Source Unknown
											Phosphorus, Total	
											Sodium	
Specific Conductivity												
Lower Missouri	MT40Q002_020	EAST FORK POPLAR RIVER, Canada border to mouth (Poplar River)	5	21.58	MILES	B-2	N	N	F	N	Chlorophyll-a	Impacts from Hydrostructure Flow Regulation/modification
											Flow Regime Modification	Natural Sources
											Iron	Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10060005 Charlie-Little Muddy

Watershed: Missouri-Poplar

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *				Source Name *			
							AqL	Ag	DW	Rec								
Lower Missouri	MT40S003_010	MISSOURI RIVER, Poplar River to North Dakota border	5	91.97	MILES	B-3	N	F	F	X	Flow Regime Modification					Dam or Impoundment		
											Temperature					Impacts from Hydrostructure Flow Regulation/modification		
Lower Missouri	MT40S004_010	CHARLIE CREEK, East and Middle Charlie Creek to mouth (Missouri River)	5	32.86	MILES	C-3	N	-	-	F	Fish Passage Barrier					Crop Production (Crop Land or Dry Land)		
											Iron					Highways, Roads, Bridges, Infrastructure (New Construction)		
											Nitrogen, Total					Natural Sources		
											Specific Conductivity							
Lower Missouri	MT40S004_020	HARDSCRABBLE CREEK, headwaters to mouth (Missouri River)	5	35.91	MILES	C-3	N	-	-	F	Nitrogen, Total					Agriculture		
											Specific Conductivity					Natural Sources		
											Total Dissolved Solids (TDS)							

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10060006 Big Muddy

Watershed: Missouri-Poplar

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use			Cause Name *			Source Name *
AqL	Ag	DW	Rec										
Lower Missouri	MT40R001_010	BIG MUDDY CREEK, north corner of Fort Peck Reservation boundary to mouth (Missouri River)	5	82.08	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers	Agriculture	
											Flow Regime Modification	Grazing in Riparian or Shoreline Zones	
											Nitrogen, Total	Impacts from Hydrostructure Flow Regulation/modification	
											Phosphorus, Total		
											Sedimentation/Siltation		
Lower Missouri	MT40R001_020	BIG MUDDY CREEK, Canadian border to northern boundary of Fort Peck Reservation	5	119.54	MILES	C-3	N	-	-	F	Alteration in stream-side or littoral vegetative covers	Agriculture	
											Copper	Crop Production (Non-Irrigated)	
											Lead	Grazing in Riparian or Shoreline Zones	
											Mercury	Source Unknown	
											Nitrogen, Total		
											Organic Enrichment		
											Phosphorus, Total		
											Zinc		
Lower Missouri	MT40R003_010	MEDICINE LAKE	5	9726.1	ACRES	C-3	N	-	-	F	Cadmium	Atmospheric Deposition - Toxics	
											Lead	Source Unknown	
											Mercury		

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Upper Yellowstone Sub-Major Basin

Yellowstone River Basin

HUC8	Name
10070006	Clarks Fork Yellowstone
10070002	Upper Yellowstone
10070003	Shields
10070004	Upper Yellowstone-Lake Basin
10070005	Stillwater
10070007	Upper Yellowstone-Pompeys Pillar
10070008	Pryor
10070001	Yellowstone Headwaters



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10070001 Yellowstone Headwaters

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Yellowstone River	MT43B001_010	YELLOWSTONE RIVER, Yellowstone Park Boundary to Reese Creek	5	4.79	MILES	B-1	N	F	N	F	Ammonia, Total Arsenic Copper Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Sedimentation/Siltation	Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Natural Sources Source Unknown Subsurface (Hardrock) Mining Surface Mining
Yellowstone River	MT43B001_011	YELLOWSTONE RIVER, Wyoming border to Yellowstone National Park Boundary	5	8.68	MILES	A-1	N	X	N	X	Ammonia, Un-ionized Arsenic Copper Nitrate/Nitrite (Nitrite + Nitrate as N) Sedimentation/Siltation	Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Natural Sources Source Unknown Subsurface (Hardrock) Mining Surface Mining
Paradise	MT43B002_010	REESE CREEK, Wyoming border to mouth (Yellowstone River)	4C	5.23	MILES	A-1	N	F	F	F	Fish Passage Barrier	Source Unknown
Paradise	MT43B002_021	BEAR CREEK, 1/2 mile below Jardine Mine to mouth (Yellowstone River)	5	3.03	MILES	B-1	N	F	F	X	Flow Regime Modification Temperature	Water Diversions
Cooke City	MT43B002_040	MILLER CREEK, headwaters to mouth (Soda Butte Creek)	4A	2.56	MILES	B-1	N	X	F	X	Copper	Acid Mine Drainage Mine Tailings Natural Sources

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070002 Upper Yellowstone

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Yellowstone River	MT43B003_010	YELLOWSTONE RIVER, Reese Creek to Bridger Creek	4C	119	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations	Loss of Riparian Habitat Site Clearance (Land Development or Redevelopment) Streambank Modifications/destabilization
Yellowstone - Sweet Grass	MT43B004_011	OTTER CREEK, 2 mi downstream of Highway 191 bridge to mouth (Yellowstone River)	4C	29.57	MILES	B-1	N	X	X	X	Flow Regime Modification Physical substrate habitat alterations	Impacts from Hydrostructure Flow Regulation/modification
Yellowstone - Sweet Grass	MT43B004_012	OTTER CREEK, headwaters to 2 mi downstream of Highway 191 bridge	5	24.5	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Agriculture
Yellowstone - Sweet Grass	MT43B004_021	BIG TIMBER CREEK, Swamp Creek to mouth (Yellowstone River)	4C	5.37	MILES	B-1	N	X	X	X	Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification
Yellowstone - Sweet Grass	MT43B004_022	BIG TIMBER CREEK, headwaters downstream to Swamp Creek	5	26.75	MILES	B-1	N	F	N	I	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Iron Lead Manganese Nickel Sedimentation/Siltation Selenium	Agriculture Grazing in Riparian or Shoreline Zones Source Unknown
Yellowstone - Sweet Grass	MT43B004_031	LOWER DEER CREEK, 4 mile upstream to mouth (Yellowstone River)	4C	4.43	MILES	B-1	N	X	X	X	Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification
Yellowstone - Sweet Grass	MT43B004_041	UPPER DEER CREEK, Cartwright Gulch to mouth (Yellowstone River)	4C	6.95	MILES	B-1	N	X	X	X	Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification
Yellowstone - Sweet Grass	MT43B004_042	UPPER DEER CREEK, headwaters to Cartwright Gulch	5	16.63	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Sediment	Grazing in Riparian or Shoreline Zones Silviculture Activities
Paradise	MT43B004_051	BILLMAN CREEK, 1.3 miles upstream to mouth (Yellowstone River)	5	1.37	MILES	B-1	N	F	F	N	Algae Fish Passage Barrier Nitrate/Nitrite (Nitrite + Nitrate as N)	Agriculture Channelization Habitat Modification - other than Hydromodification

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070002 Upper Yellowstone

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Paradise	MT43B004_051	BILLMAN CREEK, 1.3 miles upstream to mouth (Yellowstone River)	5	1.37	MILES	B-1	N	F	F	N	Sedimentation/Siltation	Source Unknown
Paradise	MT43B004_052	BILLMAN CREEK, headwaters to 1.3 miles above mouth (Yellowstone River)	5	13.44	MILES	B-1	N	F	F	F	Combined Biota/Habitat Bioassessments	Agriculture
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Channelization
											Sedimentation/Siltation	Source Unknown
Paradise	MT43B004_061	TOM MINER CREEK, Teepee Creek to mouth (Yellowstone River)	5	.73	MILES	B-1	N	F	F	X	Flow Regime Modification	Water Diversions
											Temperature	
Paradise	MT43B004_071	MILL CREEK, National Forest boundary to mouth (Yellowstone River)	4C	7.4	MILES	B-1	N	X	X	X	Flow Regime Modification	Agriculture
											Impacts from Hydrostructure Flow Regulation/modification	
Paradise	MT43B004_081	PINE CREEK, 2.5 miles upstream to mouth (Yellowstone River)	4C	2.42	MILES	B-1	N	X	X	X	Flow Regime Modification	Crop Production (Irrigated)
											Impacts from Hydrostructure Flow Regulation/modification	
Paradise	MT43B004_090	SUCE CREEK, Absaroka-Beartooth Wilderness boundary to mouth (Yellowstone River)	4C	3.85	MILES	B-1	N	X	X	X	Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification
Paradise	MT43B004_101	SIX MILE CREEK, National Forest boundary to mouth (Yellowstone River)	4C	6.19	MILES	B-1	N	X	X	X	Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification
Paradise	MT43B004_102	SIX MILE CREEK, Absaroka-Beartooth Wilderness boundary to National Forest boundary	5	2.54	MILES	B-1	N	X	X	X	Other anthropogenic substrate alterations	Loss of Riparian Habitat
											Sedimentation/Siltation	Placer Mining
Big Creek (Yellowstone)	MT43B004_111	BIG CREEK, National Forest boundary to mouth (Yellowstone River)	4C	4.25	MILES	B-1	N	X	X	X	Flow Regime Modification	Water Diversions
Paradise	MT43B004_120	MOL HERON CREEK, Yellowstone National Park boundary to mouth (Yellowstone River)	4C	9.03	MILES	B-1	N	F	F	F	Flow Regime Modification	Agriculture
Boulder - Big Timber	MT43B004_131	BOULDER RIVER, Clayton Ditch to mouth (Yellowstone River)	5	5.51	MILES	B-1	N	F	F	X	Copper	Crop Production (Irrigated)
											Flow Regime Modification	Impacts from Abandoned Mine Lands (Inactive)
											Iron	
											Lead	
											Silver	
Boulder - Big Timber	MT43B004_132	BOULDER RIVER, Natural Bridge and Falls (T3S R12E S26) to Clayton Ditch (T1N R14E S34)	5	27.84	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Agriculture
											Chromium, Total	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070002 Upper Yellowstone

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Boulder - Big Timber	MT43B004_132	BOULDER RIVER, Natural Bridge and Falls (T3S R12E S26) to Clayton Ditch (T1N R14E S34)	5	27.84	MILES	B-1	N	F	F	F	Copper Iron Lead Nickel Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total	Source Unknown
Boulder - Big Timber	MT43B004_133	BOULDER RIVER, confluence of the East Fork Boulder River to Natural bridge and Falls (T3S R12E S26)	5	24.1	MILES	B-1	N	F	F	N	Algae Copper Iron Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total	Coal Mining Discharges (Permitted) Hardrock Mining Discharges (Permitted) Source Unknown
Boulder - Big Timber	MT43B004_134	BOULDER RIVER, Absaroka-Beartooth Wilderness boundary to confluence of East Fork Boulder River	4A	5.97	MILES	B-1	N	F	N	F	Copper Iron Lead	Impacts from Abandoned Mine Lands (Inactive)
Boulder - Big Timber	MT43B004_141	EAST BOULDER RIVER, Elk Creek to mouth (Boulder River)	5	3.14	MILES	B-1	N	F	F	N	Chlorophyll-a Flow Regime Modification Other anthropogenic substrate alterations Sedimentation/Siltation	Source Unknown Streambank Modifications/destabilization Water Diversions
Boulder - Big Timber	MT43B004_142	EAST BOULDER RIVER, National Forest boundary to Elk Creek	4C	3.07	MILES	B-1	N	F	I	N	Chlorophyll-a Flow Regime Modification	Agriculture Source Unknown
Yellowstone - Sweet Grass	MT43B004_150	SWEET GRASS CREEK, headwaters to mouth (Yellowstone River)	4C	79.33	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers	Agriculture
Boulder - Big Timber	MT43B005_010	BASIN CREEK, headwater to mouth (Boulder River)	4A	1.55	MILES	B-1	N	X	X	X	Copper Iron Lead	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070003 Shields

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Shields	MT43A001_011	SHIELDS RIVER, Cottonwood Creek to mouth (Yellowstone River)	4A	18.99	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Impacts from Hydrostructure Flow Regulation/modification Streambank Modifications/destabilization
Shields	MT43A001_012	SHIELDS RIVER, headwaters to Cottonwood Creek	4A	44.99	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Physical substrate habitat alterations Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Silviculture Activities Streambank Modifications/destabilization
Shields	MT43A002_010	POTTER CREEK, headwaters to the mouth (Flathead Creek), T3N R9E S18	4A	27.76	MILES	B-1	N	F	F	F	Flow Regime Modification Sedimentation/Siltation	Impacts from Hydrostructure Flow Regulation/modification
Shields	MT43A002_020	ANTELOPE CREEK, headwaters to mouth (Shields River)	5	10.37	MILES	B-1	N	F	F	N	Algae Alteration in stream-side or littoral vegetative covers Sediment	Agriculture Livestock (Grazing or Feeding Operations) Source Unknown
Shields	MT43A002_031	COTTONWOOD CREEK, confluence of Trespass Creek to mouth (Shields River)	4C	18.32	MILES	B-1	N	F	F	X	Flow Regime Modification	Crop Production (Irrigated)
Shields	MT43A002_040	ELK CREEK, headwaters to mouth (Shields River)	4C	3.83	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
Shields	MT43A002_051	ROCK CREEK, National Forest boundary to mouth (Shields River)	4C	14.34	MILES	B-1	N	F	F	X	Flow Regime Modification	Water Diversions

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070004 Upper Yellowstone-Lake Basin

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *		Source Name *
AqL	Ag	DW	Rec										
Yellowstone River	MT43F001_011	YELLOWSTONE RIVER, City of Laurel PWS to City of Billings PWS	5	19.4	MILES	B-2	N	F	I	N	Cause Unknown	Channelization	
											Chlorophyll-a	Crop Production (Crop Land or Dry Land)	
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Municipal Point Source Discharges	
											Oil and Grease	Pipeline Breaks	
											Other anthropogenic substrate alterations	Streambank Modifications/destabilization	
											Physical substrate habitat alterations		
Yellowstone - Sweet Grass	MT43F002_010	DUCK CREEK, headwaters to mouth (Yellowstone River)	5	13.68	MILES	B-2	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Channelization	
											Flow Regime Modification	Drought-related Impacts	
											Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones	
Yellowstone - Sweet Grass	MT43F002_021	CANYON CREEK, highway 532 to mouth (Yellowstone River)	4C	19.6	MILES	B-2	N	X	X	X	Flow Regime Modification	Water Diversions	
Yellowstone - Sweet Grass	MT43F002_022	CANYON CREEK, headwaters to highway 532	5	29.7	MILES	B-2	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Agriculture	
											Dissolved Oxygen	Channelization	
											Flow Regime Modification	Drought-related Impacts	
											Sedimentation/Siltation		
Yellowstone - Sweet Grass	MT43F002_040	VALLEY CREEK, headwaters to mouth (Yellowstone River)	5	14.75	MILES	B-2	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Agriculture	
											Benthic Macroinvertebrates	Channelization	
											Dissolved Oxygen	Crop Production (Irrigated)	
											Flow Regime Modification	Drought-related Impacts	
											Sedimentation/Siltation	Loss of Riparian Habitat	
Lake Basin - Spidel	MT43F003_010	BIG LAKE	5	2583	ACRES	B-2	N	N	N	X	Salinity	Agriculture	
Lake Basin - Spidel	MT43F003_030	HALFBREED LAKE	5	211	ACRES	B-2	N	N	N	X	Salinity	Agriculture	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070005 Stillwater

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *				Source Name *
						AqL	Ag	DW	Rec						
Cooke City	MT43C001_010	STILLWATER RIVER, headwaters to Absaroka-Beartooth Wilderness boundary	4A	3.71	MILES	B-1	N	F	I	X	Copper		Acid Mine Drainage		
											Sedimentation/Siltation		Highway/Road/Bridge Runoff (Non-construction Related)		
											pH		Impacts from Abandoned Mine Lands (Inactive)		
													Mine Tailings		
													Natural Sources		
Stillwater - Columbus	MT43C001_020	STILLWATER RIVER, Forest Service Boundary to the mouth (Yellowstone River), T2S R20E S20	5	45.59	MILES	B-1	N	F	N	F	Cadmium		Hardrock Mining Discharges (Permitted)		
											Chromium, Total		Impacts from Abandoned Mine Lands (Inactive)		
											Copper		Natural Sources		
											Cyanide		Source Unknown		
											Mercury		Watershed Runoff following Forest Fire		
											Nickel				
											Nitrate/Nitrite (Nitrite + Nitrate as N)				
Stillwater - Columbus	MT43C002_010	LODGEPOLE CREEK, headwaters to mouth (Castle Creek)	5	5.91	MILES	B-1	N	F	F	N	Chlorophyll-a		Crop Production (Irrigated)		
											Nitrate/Nitrite (Nitrite + Nitrate as N)		Rangeland Grazing		
													Source Unknown		
Stillwater - Columbus	MT43C002_020	BAD CANYON CREEK, headwaters to mouth (Stillwater River)	4C	11.34	MILES	B-1	F	F	F	N	Chlorophyll-a		Rangeland Grazing		
Stillwater - Columbus	MT43C002_030	CASTLE CREEK, headwaters to the mouth (Limestone Creek), T4S R15E S29	5	8.29	MILES	B-1	N	F	F	N	Chlorophyll-a		Livestock (Grazing or Feeding Operations)		
											Nitrate/Nitrite (Nitrite + Nitrate as N)		Source Unknown		
													Upstream Source		
Stillwater - Columbus	MT43C002_041	GROVE CREEK, confluence of South Fork Grove Creek, T4S R18E S13 to the mouth (Stillwater River), T3S R18E S34	5	5.23	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers		Crop Production (Irrigated)		
											Chlorophyll-a		Grazing in Riparian or Shoreline Zones		
											Phosphorus, Total		Loss of Riparian Habitat		
											Sedimentation/Siltation		Natural Sources		
Stillwater - Columbus	MT43C002_050	FISHTAIL CREEK, headwaters to mouth (West Rosebud Creek)	5	14.8	MILES	B-1	N	F	F	F	Iron		Source Unknown		
											Lead				
Stillwater - Columbus	MT43C002_070	JOE HILL CREEK, headwaters to mouth (Stillwater River)	5	13.16	MILES	B-1	N	F	F	N	Chlorophyll-a		Crop Production (Irrigated)		

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070005 Stillwater

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Stillwater - Columbus	MT43C002_070	JOE HILL CREEK, headwaters to mouth (Stillwater River)	5	13.16	MILES	B-1	N	F	F	N	Flow Regime Modification Sedimentation/Siltation	Water Diversions
Stillwater - Columbus	MT43C002_081	BUTCHER CREEK, highway 78 to mouth (Rosebud Creek)	5	22.02	MILES	B-1	N	F	F	X	Flow Regime Modification Physical substrate habitat alterations Sediment	Streambank Modifications/destabilization Transfer of Water from an Outside Watershed
Stillwater - Columbus	MT43C002_082	BUTCHER CREEK, headwaters to highway 78	5	4.98	MILES	B-1	N	F	F	N	Chlorophyll-a Fish Passage Barrier Phosphorus, Total Sedimentation/Siltation	Hydrostructure Impacts on Fish Passage Source Unknown
Stillwater - Columbus	MT43C002_090	WEST ROSEBUD CREEK, Absaroka-Beartooth Wilderness boundary to mouth (Rosebud Creek)	5	31.77	MILES	B-1	N	F	F	F	Benthic Macroinvertebrates	Source Unknown
Stillwater - Columbus	MT43C002_100	ROSEBUD CREEK, East and West Branches to mouth (Stillwater River)	5	3.93	MILES	B-1	N	F	F	F	Benthic Macroinvertebrates	Source Unknown
Cooke City	MT43C002_140	DAISY CREEK, headwaters to mouth (Stillwater River)	4A	1.94	MILES	B-1	N	X	N	X	Aluminum Cadmium Copper Iron Lead Sedimentation/Siltation Zinc pH	Acid Mine Drainage Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Mine Tailings Natural Sources

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070006 Clarks Fork Yellowstone

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Clarks Fork Yellowstone	MT43D001_011	CLARKS FORK YELLOWSTONE RIVER, Bridger Creek to mouth (Yellowstone River)	5	43.32	MILES	B-2	N	X	I	N	Ammonia, Total	Crop Production (Irrigated)
											Chlorophyll-a	Habitat Modification - other than Hydromodification
											Copper	Impacts from Hydrostructure Flow Regulation/modification
											Flow Regime Modification	Source Unknown
											Iron	Streambank Modifications/destabilization
											Lead	
											Mercury	
											Nitrate/Nitrite (Nitrite + Nitrate as N)	
											Nitrogen, Total	
											Phosphorus, Total	
											Physical substrate habitat alterations	
											Sediment	
											Temperature	
Cooke City	MT43D001_020	CLARKS FORK YELLOWSTONE RIVER, headwaters to Absaroka-Beartooth Wilderness boundary	4A	3.22	MILES	B-1	N	F	F	X	Copper	Acid Mine Drainage
											pH	Impacts from Abandoned Mine Lands (Inactive)
												Mine Tailings
Clarks Fork Yellowstone	MT43D002_010	ELBOW CREEK, headwaters to mouth (Clarks Fork)	5	38.57	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers	Animal Feeding Operations (NPS)
											Chlorophyll-a	Crop Production (Irrigated)
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Grazing in Riparian or Shoreline Zones
											Nitrogen, Total	Rangeland Grazing
											Sedimentation/Siltation	
Clarks Fork Yellowstone	MT43D002_020	BEAR CREEK, headwaters to mouth (Clarks Fork)	5	21.14	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated)
											Chlorophyll-a	Impacts from Abandoned Mine Lands (Inactive)
											Flow Regime Modification	Loss of Riparian Habitat
											Iron	Rangeland Grazing
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Transfer of Water from an Outside Watershed
											Phosphorus, Total	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070006 Clarks Fork Yellowstone

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Clarks Fork Yellowstone	MT43D002_020	BEAR CREEK, headwaters to mouth (Clarks Fork)	5	21.14	MILES	B-1	N	F	F	N	Sedimentation/Siltation	
Clarks Fork Yellowstone	MT43D002_031	BLUEWATER CREEK, unnamed tributary at T6N R24E S7 NWNE to mouth (Clarks Fork Yellowstone River)	5	11.41	MILES	B-1	N	F	F	N	Chlorophyll-a	Agriculture
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Animal Feeding Operations (NPS)
											Phosphorus, Total	Aquaculture (Permitted)
											Sedimentation/Siltation	Crop Production (Irrigated)
Clarks Fork Yellowstone	MT43D002_050	RED LODGE CREEK, headwaters to Cooney Reservoir	4C	17.93	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Crop Production (Crop Land or Dry Land)
												Grazing in Riparian or Shoreline Zones
Clarks Fork Yellowstone	MT43D002_060	RED LODGE CREEK, Cooney Reservoir to mouth (Rock Creek)	5	12.07	MILES	B-1	N	X	X	X	Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification
											Organic Enrichment	Streambank Modifications/destabilization
											Physical substrate habitat alterations	
Clarks Fork Yellowstone	MT43D002_070	WILLOW CREEK, headwaters to mouth (Cooney Reservoir)	5	36.46	MILES	B-1	N	X	X	X	Flow Regime Modification	Crop Production (Irrigated)
											Sedimentation/Siltation	
Clarks Fork Yellowstone	MT43D002_080	WEST RED LODGE CREEK, Absaroka-Beartooth Wilderness boundary to mouth (Red Lodge Creek)	5	14.39	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Natural Sources
												Source Unknown
Clarks Fork Yellowstone	MT43D002_100	SILVERTIP CREEK, Wyoming border to mouth (Clarks Fork Yellowstone River)	5	21.77	MILES	B-1	N	N	N	F	Alteration in stream-side or littoral vegetative covers	Channelization
											Dissolved Oxygen	Dam or Impoundment
											Flow Regime Modification	Grazing in Riparian or Shoreline Zones
											Nitrogen, Total	Loss of Riparian Habitat
											Phosphorus, Total	Natural Sources
											Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems)	Petroleum/natural Gas Production Activities (Permitted)
											Sediment	Pipeline Breaks
											Specific Conductivity	Rangeland Grazing
											Temperature	Upstream Source
											Total Dissolved Solids (TDS)	
											Turbidity	
Cooke City	MT43D002_110	FISHER CREEK, headwaters to mouth (Clarks Fork Yellowstone River)	4A	3.34	MILES	B-1	N	X	F	X	Aluminum	Acid Mine Drainage

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070006 Clarks Fork Yellowstone

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Cooke City	MT43D002_110	FISHER CREEK, headwaters to mouth (Clarks Fork Yellowstone River)	4A	3.34	MILES	B-1	N	X	F	X	Cadmium Copper Iron Lead Sedimentation/Siltation Zinc pH	Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Clarks Fork Yellowstone	MT43D002_120	ROCK CREEK, Red Lodge Creek to mouth (Clarks Fork)	4C	16.02	MILES	B-1	N	X	X	X	Flow Regime Modification	Crop Production (Irrigated) Water Diversions
Clarks Fork Yellowstone	MT43D002_131	ROCK CREEK, West Fork Rock Creek to Red Lodge Creek	4C	27.47	MILES	B-1	N	X	X	X	Flow Regime Modification	Crop Production (Irrigated) Water Diversions
Clarks Fork Yellowstone	MT43D002_140	COTTONWOOD CREEK, headwaters to the mouth (Clarks Fork of Yellowstone), T3S R24E S24	5	19.57	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Dissolved Oxygen Sediment	Agriculture Drought-related Impacts Grazing in Riparian or Shoreline Zones
Clarks Fork Yellowstone	MT43D002_180	SOUTH FORK BRIDGER CREEK, Headwaters to mouth (Bridger Creek)	5	9.39	MILES	B-1	N	F	N	F	Arsenic Iron Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Natural Sources Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070007 Upper Yellowstone-Pompeys

Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Yellowstone River	MT43F001_010	YELLOWSTONE RIVER, City of Billings PWS to Huntley Diversion Dam	5	10.62	MILES	B-3	N	F	N	N	Algae	Agriculture
											Arsenic	Municipal Point Source Discharges
											Benthic Macroinvertebrates	Natural Sources
											Dissolved Oxygen	Pipeline Breaks
											Eutrophication	
											Oil and Grease	
											Periphyton (Aufwuchs) Indicator	
											Bioassessments	
											Sediment	
Yellowstone River	MT43Q001_011	YELLOWSTONE RIVER, Huntley Diversion Dam to mouth of Big Horn River	5	58.31	MILES	B-3	N	I	I	N	Ammonia, Un-ionized	Agriculture
											Oil and Grease	Crop Production (Irrigated)
											Sedimentation/Siltation	Industrial Point Source Discharge
											Total Dissolved Solids (TDS)	Municipal Point Source Discharges
												Natural Sources
												Pipeline Breaks
Yellowstone - Lower Bighorn	MT43Q002_010	FLY CREEK, Crow Indian Reservation boundary to mouth (Yellowstone River)	5	55.68	MILES	C-3	N	-	-	N	Alteration in stream-side or littoral vegetative covers	Agriculture
											Chlorophyll-a	Dam or Impoundment
											Dissolved Oxygen	Drought-related Impacts
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Loss of Riparian Habitat
											Nitrogen, Total	
Lake Basin - Spidel	MT43Q003_010	SPIDEL WATERFOWL PRODUCTION AREA	5	659.8	ACRES	B-1	N	N	N	X	Other anthropogenic substrate alterations	Crop Production (Non-Irrigated)
											Salinity	Highways, Roads, Bridges, Infrastructure (New Construction)
											Selenium	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10070008 Pryor

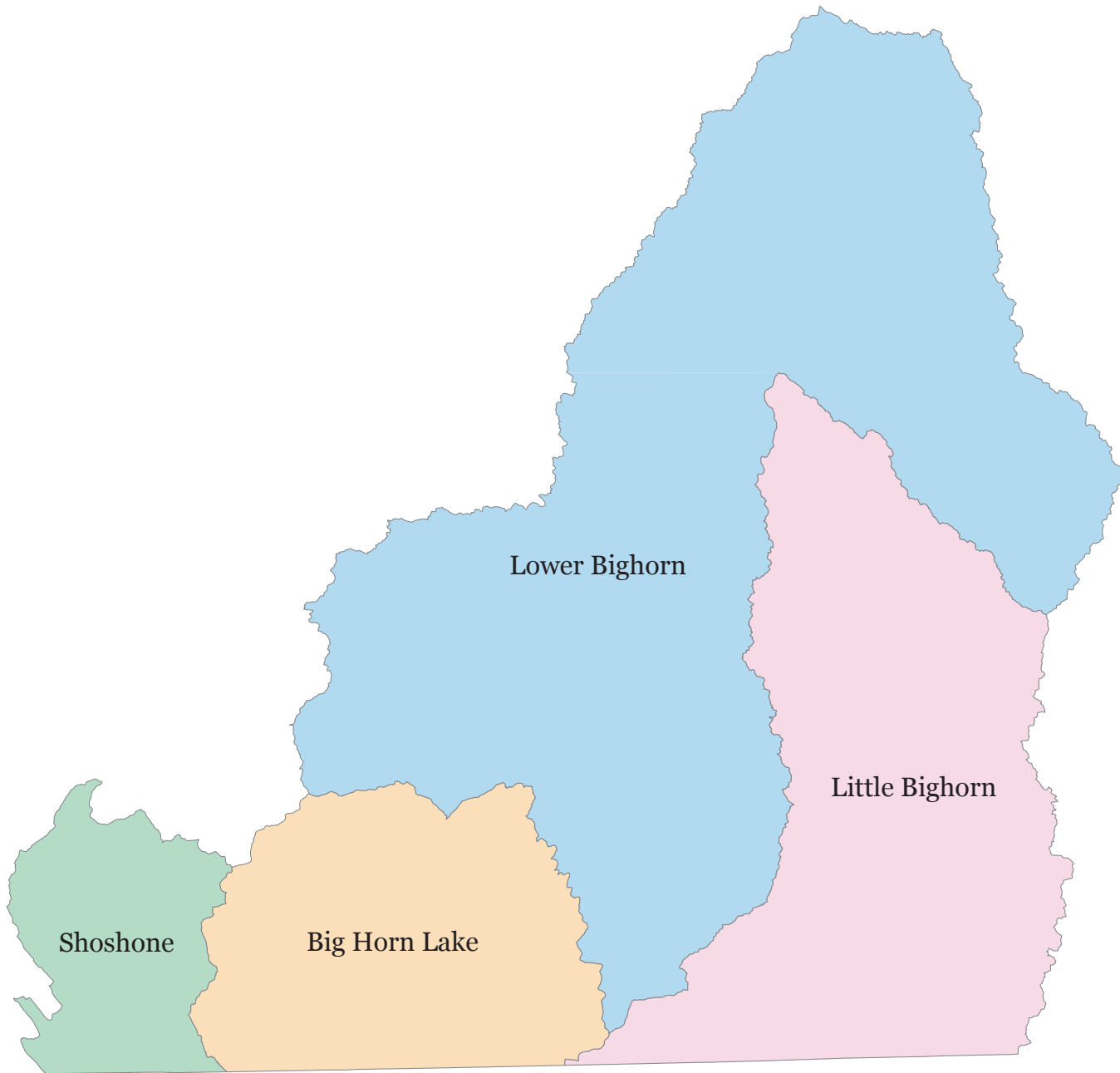
Watershed: Upper Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Yellowstone - Lower Bighorn	MT43E001_010	PRYOR CREEK, Interstate 90 bridge to mouth (Yellowstone River)	5	14.98	MILES	C-3	N	-	-	X	Benthic Macroinvertebrates	Crop Production (Irrigated)
											Flow Regime Modification	Source Unknown
												Water Diversions
Yellowstone - Lower Bighorn	MT43E001_011	PRYOR CREEK, Crow Reservation Boundary to Interstate 90 bridge	5	2.88	MILES	B-1	N	F	F	N	Algae	Agriculture
											Flow Regime Modification	Natural Sources
											Sedimentation/Siltation	Sources Outside State Jurisdiction or Borders
												Upstream Source
												Water Diversions

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

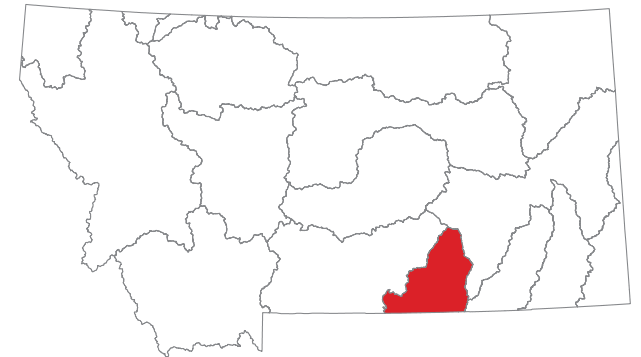
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Big Horn Sub-Major Basin

Yellowstone River Basin

USGS HUC	HUC NAME
10080010	Big Horn Lake
10080014	Shoshone
10080015	Lower Bighorn
10080016	Little Bighorn



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10080010 Bighorn Lake

Watershed: Big Horn

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Bighorn Lake - Shoshone	MT43P002_010	CROOKED CREEK, headwaters to Wyoming Border	4C	15.07	MILES	B-1	N	X	X	X	Physical substrate habitat alterations	Agriculture

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10080015 Lower Bighorn

Watershed: Big Horn

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Yellowstone - Lower Bighorn	MT43R001_010	BIGHORN RIVER, Crow Indian Res. Boundary to mouth (Yellowstone River)	5	40.02	MILES	B-2	X	F	N	X	Lead	Source Unknown
											Mercury	
Yellowstone - Lower Bighorn	MT43R002_010	TULLOCK CREEK, Crow Indian Reservation Boundary to mouth (Bighorn River)	5	58.83	MILES	C-3	N	-	-	F	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated)
											Flow Regime Modification	Dam or Impoundment
											Iron	Loss of Riparian Habitat
											Nitrogen, Total	Natural Sources
											Phosphorus, Total	Rangeland Grazing
											Sedimentation/Siltation	Water Diversions

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.

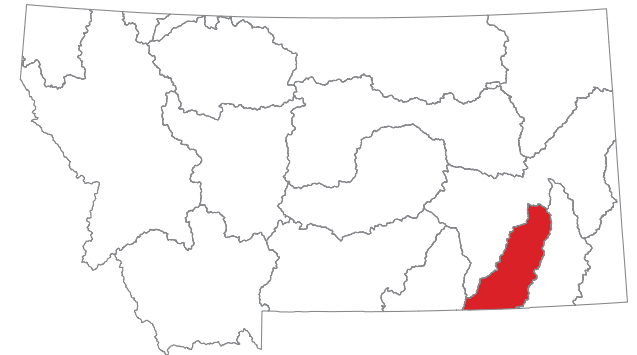
Tongue Sub-Major Basin

Yellowstone River Basin

USGS HUC	HUC NAME
10090101	Upper Tongue
10090102	Lower Tongue

Lower Tongue

Upper Tongue



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10090101 Upper Tongue

Watershed: Tongue

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Tongue	MT42B001_010	TONGUE RIVER, Wyoming border to Tongue River Reservoir	5	5.9	MILES	B-2	N	F	F	F	Flow Regime Modification Iron	Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification Natural Sources Streambank Modifications/destabilization
Tongue	MT42B001_020	TONGUE RIVER, Tongue River Dam to Prairie Dog Creek	4C	22.05	MILES	B-2	N	F	F	I	Flow Regime Modification	Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification Streambank Modifications/destabilization
Tongue	MT42B001_021	TONGUE RIVER, Prairie Dog Creek to Hanging Woman Creek	4C	12.27	MILES	B-3	N	I	I	I	Flow Regime Modification	Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification Streambank Modifications/destabilization
Tongue	MT42B002_031	HANGING WOMAN CREEK, Stroud Creek to mouth (Tongue River)	5	18.27	MILES	C-3	N	N	-	I	Flow Regime Modification Iron Salinity Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Natural Sources Rangeland Grazing Streambank Modifications/destabilization
Tongue	MT42B002_032	HANGING WOMAN CREEK, Wyoming border to Stroud Creek	5	31.37	MILES	C-3	N	N	-	I	Flow Regime Modification Salinity	Crop Production (Irrigated) Natural Sources
Tongue	MT42B003_010	TONGUE RIVER RESERVOIR	5	2158.5	ACRES	B-2	N	I	I	I	Chlorophyll-a Dissolved Oxygen Sediment	Crop Production (Irrigated) Municipal Point Source Discharges

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10090102 Lower Tongue

Watershed: Tongue

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Tongue	MT42C001_011	TONGUE RIVER, Twelve Mile Dam to mouth (Yellowstone River)	5	20.9	MILES	B-3	N	N	N	I	Cadmium Copper Flow Regime Modification Iron Lead Nickel Salinity Sediment Zinc	Crop Production (Irrigated) Dam Construction (Other than Upstream Flood Control Projects) Impacts from Hydrostructure Flow Regulation/modification Natural Sources Streambank Modifications/destabilization
Tongue	MT42C001_013	TONGUE RIVER, Hanging Woman Creek to Beaver Creek	5	74.97	MILES	B-3	N	F	F	I	Flow Regime Modification Iron Sediment	Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification Natural Sources Streambank Modifications/destabilization
Tongue	MT42C001_014	TONGUE RIVER, Beaver Creek to Twelve Mile Dam, T6N R48E S29	5	72	MILES	B-3	N	F	F	I	Flow Regime Modification Iron Sediment	Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification Natural Sources Streambank Modifications/destabilization
Tongue	MT42C002_020	OTTER CREEK, headwaters to mouth (Tongue River)	5	108.1	MILES	C-3	N	N	-	I	Alteration in stream-side or littoral vegetative covers Iron Salinity	Agriculture Grazing in Riparian or Shoreline Zones Highways, Roads, Bridges, Infrastructure (New Construction) Natural Sources Site Clearance (Land Development or Redevelopment)
Tongue	MT42C002_061	PUMPKIN CREEK, headwaters to Little Pumpkin Creek	5	87.68	MILES	C-3	N	N	-	I	Flow Regime Modification Salinity Temperature	Crop Production (Irrigated) Natural Sources
Tongue	MT42C002_062	PUMPKIN CREEK, Little Pumpkin Creek to the mouth (Tongue River)	5	92.19	MILES	C-3	N	N	-	I	Flow Regime Modification	Crop Production (Irrigated)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10090102 Lower Tongue

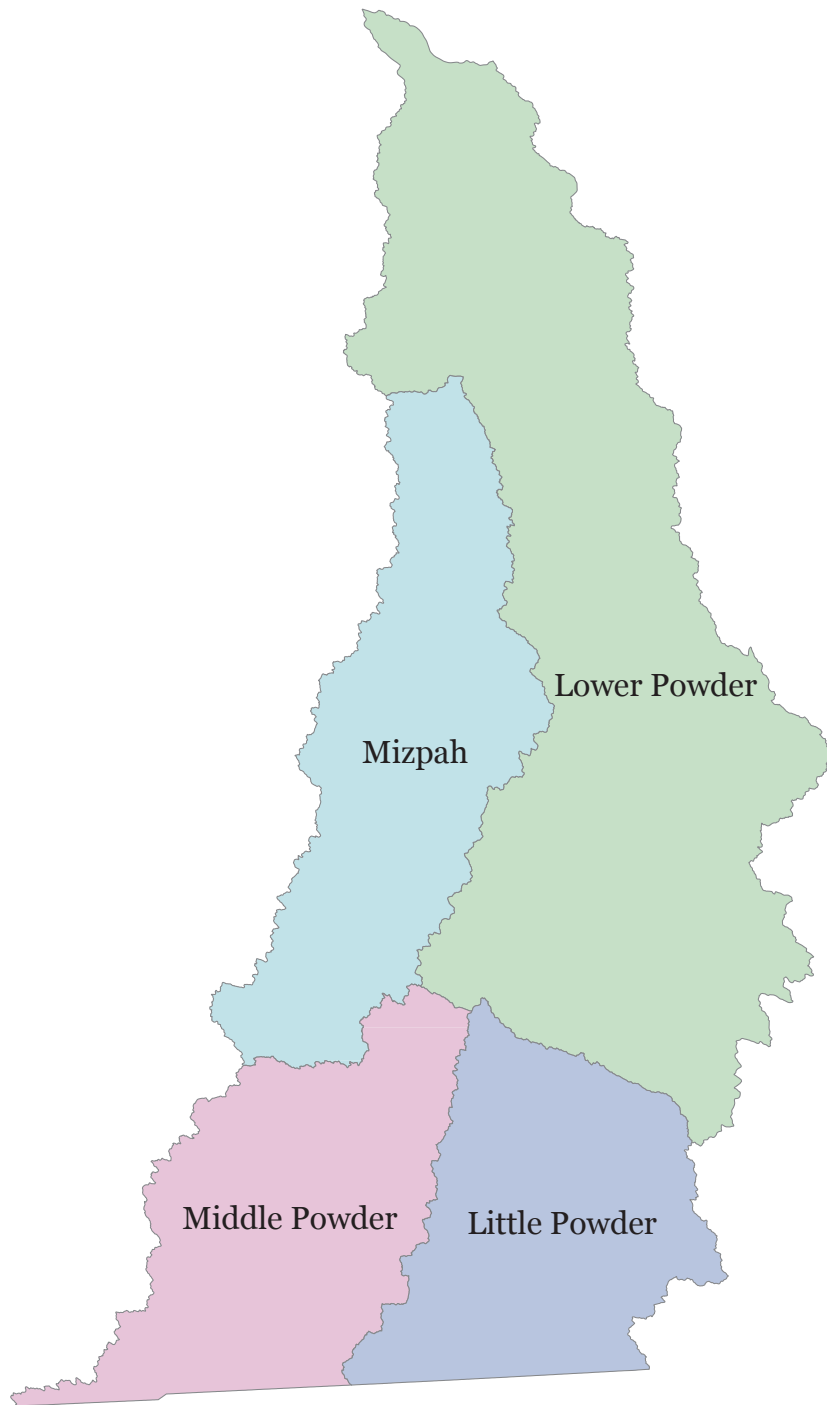
Watershed: Tongue

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Tongue	MT42C002_062	PUMPKIN CREEK, Little Pumpkin Creek to the mouth (Tongue River)	5	92.19	MILES	C-3	N	N	-	I	Salinity Temperature	Natural Sources

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

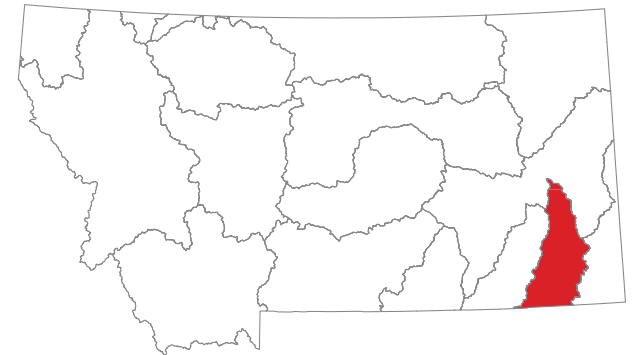
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Powder Sub-Major Basin

Yellowstone River Basin

HUC8	Name
10090209	Lower Powder
10090210	Mizpah
10090207	Middle Powder
10090208	Little Powder



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10090207 Middle Powder

Watershed: Powder

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Powder	MT42J001_010	POWDER RIVER, Wyoming border to Little Powder River	5	78.21	MILES	C-3	X	N	-	X	Salinity	Natural Sources Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10090208 Little Powder

Watershed: Powder

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Powder	MT421001_010	LITTLE POWDER RIVER, Wyoming border to mouth (Powder River)	5	63.31	MILES	C-3	X	N	-	X	Salinity	Natural Sources Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10090209 Lower Powder

Watershed: Powder

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Powder	MT42J003_011	POWDER RIVER, Little Powder River to Mizpah Creek	5	99	MILES	C-3	X	N	-	X	Salinity	Natural Sources Source Unknown
Powder	MT42J003_012	POWDER RIVER, Mizpah Creek to mouth (Yellowstone River)	5	45.33	MILES	C-3	X	N	-	X	Salinity	Natural Sources Source Unknown
Powder	MT42J004_010	STUMP CREEK, headwaters to mouth (Powder River)	5	29.77	MILES	C-3	X	N	-	X	Salinity	Natural Sources

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10090210 Mizpah

Watershed: Powder

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Powder	MT42J005_011	MIZPAH CREEK, headwaters to Corral Creek	5	131.98	MILES	C-3	X	N	-	X	Salinity	Natural Sources
Powder	MT42J005_012	MIZPAH CREEK, Corral Creek to the mouth (Powder River)	5	22.98	MILES	C-3	X	N	-	X	Salinity	Natural Sources

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

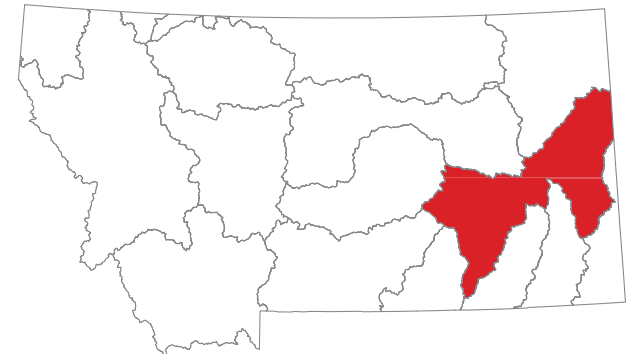
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Lower Yellowstone Sub-Major Basin

Yellowstone River Basin

USGS HUC	HUC NAME
10100001	Lower Yellowstone-Sunday
10100002	Big Porcupine
10100003	Rosebud
10100005	O'Fallon
10100004	Lower Yellowstone



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10100001 Lower Yellowstone-Sunday

Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Yellowstone River	MT42K001_010	YELLOWSTONE RIVER, the Cartersville Diversion Dam to Powder River	5	88.73	MILES	B-3	N	I	I	I	Alteration in stream-side or littoral vegetative covers Copper Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Sediment Total Dissolved Solids (TDS) Zinc pH	Agriculture Crop Production (Irrigated) Municipal Point Source Discharges Natural Sources Post-development Erosion and Sedimentation Rangeland Grazing Source Unknown Streambank Modifications/destabilization
Yellowstone River	MT42K001_020	YELLOWSTONE RIVER, the Big Horn to Cartersville Diversion Dam	4C	59.51	MILES	B-3	N	F	X	X	Fish Passage Barrier	Dam Construction (Other than Upstream Flood Control Projects)
Middle Yellowstone Tributaries	MT42K002_020	HARRIS CREEK, headwaters to mouth (Yellowstone River)	5	27.39	MILES	C-3	N	-	-	N	Chlorophyll-a Flow Regime Modification Phosphorus, Total Sediment	Grazing in Riparian or Shoreline Zones Livestock (Grazing or Feeding Operations) Natural Sources Transfer of Water from an Outside Watershed
Middle Yellowstone Tributaries	MT42K002_030	SUNDAY CREEK, the North and South Forks to mouth (Yellowstone River)	5	15.28	MILES	C-3	N	-	-	N	Chlorophyll-a Copper Iron Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations	Crop Production (Irrigated) Crop Production (Non-Irrigated) Natural Sources Rangeland Grazing Source Unknown
Middle Yellowstone Tributaries	MT42K002_040	MUSTER CREEK, headwaters to mouth (Yellowstone River)	5	31.39	MILES	C-3	N	-	-	N	Chlorophyll-a Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Phosphorus, Total Sediment	Crop Production (Irrigated) Transfer of Water from an Outside Watershed
Middle Yellowstone Tributaries	MT42K002_060	DEADMAN CREEK, headwaters to mouth (North Fork Sunday Creek)	5	17.28	MILES	C-3	N	-	-	F	Nitrogen, Total	Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10100001 Lower Yellowstone-Sunday

Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Middle Yellowstone Tributaries	MT42K002_060	DEADMAN CREEK, headwaters to mouth (North Fork Sunday Creek)	5	17.28	MILES	C-3	N	-	-	F	Phosphorus, Total	
Middle Yellowstone Tributaries	MT42K002_070	STELLAR CREEK, headwaters to mouth (Little Porcupine Creek)	5	42.96	MILES	C-3	N	-	-	N	Cadmium	Rangeland Grazing
											Chlorophyll-a	Source Unknown
											Phosphorus, Total	
											pH	
Middle Yellowstone Tributaries	MT42K002_080	NORTH FORK SUNDAY CREEK, Custer/Rosebud County border to mouth (Sunday Creek)	5	33.76	MILES	C-3	N	-	-	F	Sedimentation/Siltation	Channelization
											Sodium	Crop Production (Crop Land or Dry Land)
											Specific Conductivity	Natural Sources
											Total Dissolved Solids (TDS)	
Middle Yellowstone Tributaries	MT42K002_090	SARPY CREEK, Crow Indian Reservation Boundary to mouth (Yellowstone River)	5	89.35	MILES	C-3	N	-	-	F	Nitrate/Nitrite (Nitrite + Nitrate as N)	Crop Production (Non-Irrigated)
											Nitrogen, Total	Grazing in Riparian or Shoreline Zones
											Phosphorus, Total	
Middle Yellowstone Tributaries	MT42K002_110	EAST FORK ARMELLS CREEK, mine shops area (45.866, -106.638) to mouth (Armells Creek)	5	35.38	MILES	C-3	N	-	-	F	Alteration in stream-side or littoral vegetative covers	Agriculture
											Aluminum	Coal Mining
											Habitat Alterations	Grazing in Riparian or Shoreline Zones
											Iron	Natural Sources
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Source Unknown
											Nitrogen, Total	Transfer of Water from an Outside Watershed
											Phosphorus, Total	
											Specific Conductivity	
											Total Dissolved Solids (TDS)	
Middle Yellowstone Tributaries	MT42K002_120	WEST FORK ARMELLS CREEK, headwaters to mouth (Armells Creek)	5	33.99	MILES	C-3	N	-	-	F	Aluminum	Natural Sources
											Iron	Source Unknown
Middle Yellowstone Tributaries	MT42K002_160	LITTLE PORCUPINE CREEK, headwaters to mouth (Yellowstone River)	5	118.8	MILES	C-3	N	-	-	N	Chlorophyll-a	Rangeland Grazing
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Source Unknown
											Nitrogen, Total	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10100001 Lower Yellowstone-Sunday

Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Middle Yellowstone Tributaries	MT42K002_160	LITTLE PORCUPINE CREEK, headwaters to mouth (Yellowstone River)	5	118.8	MILES	C-3	N	-	-	N	Phosphorus, Total Total Dissolved Solids (TDS)	
Middle Yellowstone Tributaries	MT42K002_170	EAST FORK ARMELLS CREEK, headwaters to mine shops area (45.866, - 106.638)	4C	21.65	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
Middle Yellowstone Tributaries	MT42K002_180	ARMELLS CREEK, confluence of East and West Forks to mouth (Yellowstone River)	5	28.76	MILES	C-3	N	-	-	X	Aluminum Iron	Natural Sources Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10100003 Rosebud

Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use			Cause Name *			Source Name *
							AqL	Ag	DW	Rec			
Rosebud	MT42A001_011	ROSEBUD CREEK, boundary at S28/29 T6N R42E to mouth (Yellowstone River)	4C	4.28	MILES	C-3	N	-	-	X	Physical substrate habitat alterations		Loss of Riparian Habitat
Rosebud	MT42A001_012	ROSEBUD CREEK, Northern Cheyenne Reservation boundary to boundary at S28/29 T6N R42E	4C	111.77	MILES	C-3	N	-	-	X	Cause Unknown		Dam Construction (Other than Upstream Flood Control Projects)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10100004 Lower Yellowstone

Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Yellowstone River	MT42M001_011	YELLOWSTONE RIVER, Lower Yellowstone Diversion Dam to North Dakota border	5	53.67	MILES	B-3	N	F	F	F	Alteration in stream-side or littoral vegetative covers Chromium, Total Copper Fish Passage Barrier Lead Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Total Dissolved Solids (TDS) pH	Crop Production (Irrigated) Impacts from Hydrostructure Flow Regulation/modification Natural Sources Rangeland Grazing Source Unknown Streambank Modifications/destabilization
Yellowstone River	MT42M001_012	YELLOWSTONE RIVER, Powder River to Lower Yellowstone Diversion Dam	4C	76.73	MILES	B-3	N	F	X	X	Fish Passage Barrier	Dam Construction (Other than Upstream Flood Control Projects)
Lower Yellowstone	MT42M002_010	BENNIE PEER CREEK, North Dakota border to mouth (Yellowstone River)	4C	10.17	MILES	C-3	N	-	-	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Physical substrate habitat alterations	Channelization Crop Production (Irrigated) Highways, Roads, Bridges, Infrastructure (New Construction)
Lower Yellowstone	MT42M002_020	FOURMILE CREEK, headwaters to North Dakota border	5	29.74	MILES	C-3	N	-	-	N	Chlorophyll-a Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Total Dissolved Solids (TDS)	Dam or Impoundment Source Unknown
Lower Yellowstone	MT42M002_030	FIRST HAY CREEK, headwaters to mouth (Yellowstone River)	5	33.37	MILES	C-3	N	-	-	I	Copper Fish Passage Barrier Flow Regime Modification Iron Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total	Crop Production (Irrigated) Hydrostructure Impacts on Fish Passage Source Unknown Transfer of Water from an Outside Watershed

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10100004 Lower Yellowstone

Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Lower Yellowstone	MT42M002_030	FIRST HAY CREEK, headwaters to mouth (Yellowstone River)	5	33.37	MILES	C-3	N	-	-	I	Sediment Total Dissolved Solids (TDS)	
Lower Yellowstone	MT42M002_040	LONE TREE CREEK, confluence of North Fork to mouth (Yellowstone River)	5	17.27	MILES	C-3	N	-	-	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Flow Regime Modification Iron Nitrate/Nitrite (Nitrite + Nitrate as N) Sediment	Channelization Crop Production (Irrigated) Habitat Modification - other than Hydromodification
Lower Yellowstone	MT42M002_051	FOX CREEK, headwaters to mouth (Yellowstone River), T22N R59E S19	5	49.85	MILES	B-2	N	N	N	N	Algae Arsenic Flow Regime Modification Iron Lead Mercury Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sediment Sulfate Total Dissolved Solids (TDS)	Channelization Crop Production (Irrigated) Natural Sources Source Unknown
Lower Yellowstone	MT42M002_052	NORTH FORK FOX CREEK, headwaters to mouth (Fox Creek), T22N R58E S21	5	20.32	MILES	B-2	N	N	N	N	Algae Arsenic Flow Regime Modification Iron Lead Mercury Nitrogen, Total	Channelization Crop Production (Irrigated) Natural Sources Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10100004 Lower Yellowstone

Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Yellowstone	MT42M002_052	NORTH FORK FOX CREEK, headwaters to mouth (Fox Creek), T22N R58E S21	5	20.32	MILES	B-2	N	N	N	N	Phosphorus, Total Physical substrate habitat alterations Sediment Sulfate Total Dissolved Solids (TDS)	
Lower Yellowstone	MT42M002_060	O'BRIEN CREEK, North Dakota border to mouth (Yellowstone River)	5	15.53	MILES	C-3	N	-	-	N	Algae Nitrate/Nitrite (Nitrite + Nitrate as N) Selenium	Animal Feeding Operations (NPS) Crop Production (Irrigated)
Lower Yellowstone	MT42M002_070	CRANE CREEK, headwaters to mouth (Yellowstone River, T21N R58E S23)	5	24.25	MILES	C-3	N	-	-	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Channelization Crop Production (Irrigated)
Lower Yellowstone	MT42M002_080	SMITH CREEK, headwaters to mouth (Yellowstone River)	4C	45.57	MILES	C-3	N	-	-	F	Fish Passage Barrier	Low Water Crossing
Lower Yellowstone	MT42M002_100	COTTONWOOD CREEK, headwaters to mouth (Yellowstone River)	5	21.99	MILES	C-3	N	-	-	F	Cadmium Fish Passage Barrier Iron Physical substrate habitat alterations	Channelization Hydrostructure Impacts on Fish Passage Natural Sources Source Unknown Water Diversions
Lower Yellowstone	MT42M002_110	BURNS CREEK, headwaters to mouth (Yellowstone River)	5	53.66	MILES	C-3	N	-	-	N	Chlorophyll-a Fish Passage Barrier Flow Regime Modification Iron Nitrogen, Total Phosphorus, Total Sediment	Crop Production (Crop Land or Dry Land) Crop Production (Irrigated) Hydrostructure Impacts on Fish Passage Natural Sources
Lower Yellowstone	MT42M002_120	MORGAN CREEK, headwaters to mouth (Yellowstone River)	4C	19.8	MILES	C-3	N	-	-	F	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
Lower Yellowstone	MT42M002_130	GLENDIVE CREEK, headwaters to mouth (Yellowstone River)	5	55.89	MILES	C-3	N	-	-	F	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10100004 Lower Yellowstone

Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use			Cause Name *			Source Name *
AqL	Ag	DW	Rec										
Lower Yellowstone	MT42M002_130	GLENDIVE CREEK, headwaters to mouth (Yellowstone River)	5	55.89	MILES	C-3	N	-	-	F	Cadmium		Natural Sources
											Chromium, Total		Source Unknown
											Copper		
											Iron		
											Lead		
											Nickel		
											Sediment		
											Selenium		
											Zinc		
Lower Yellowstone	MT42M002_141	CEDAR CREEK, 26 miles upstream to mouth (Yellowstone River)	5	27.49	MILES	C-3	N	-	-	X	Alteration in stream-side or littoral vegetative covers		Grazing in Riparian or Shoreline Zones
											Arsenic		Natural Sources
											Copper		Spills from Trucks or Trains
											Iron		
											Lead		
Lower Yellowstone	MT42M002_142	CEDAR CREEK, tributary confluence at 12N 57E S35 to tributary confluence at 13N 56E S27	5	20.13	MILES	C-3	N	-	-	F	Copper		Natural Sources
											Iron		
											Lead		
											Selenium		
Lower Yellowstone	MT42M002_150	CABIN CREEK, headwaters to mouth (Yellowstone River)	5	102.54	MILES	C-3	N	-	-	F	Dissolved Oxygen		Dam or Impoundment
											Nitrogen, Total		Natural Sources
											Sedimentation/Siltation		Rangeland Grazing
Lower Yellowstone	MT42M002_180	SEARS CREEK, headwaters to mouth (Yellowstone River)	5	15.15	MILES	C-3	N	-	-	N	Algae		Channelization
											Alteration in stream-side or littoral vegetative covers		Crop Production (Irrigated)
											Copper		Hydrostructure Impacts on Fish Passage
											Fish Passage Barrier		Rangeland Grazing
											Flow Regime Modification		Source Unknown
											Iron		Transfer of Water from an Outside Watershed

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10100004 Lower Yellowstone

Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Lower Yellowstone	MT42M002_180	SEARS CREEK, headwaters to mouth (Yellowstone River)	5	15.15	MILES	C-3	N	-	-	N	Lead Sediment	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10100005 O'Fallon

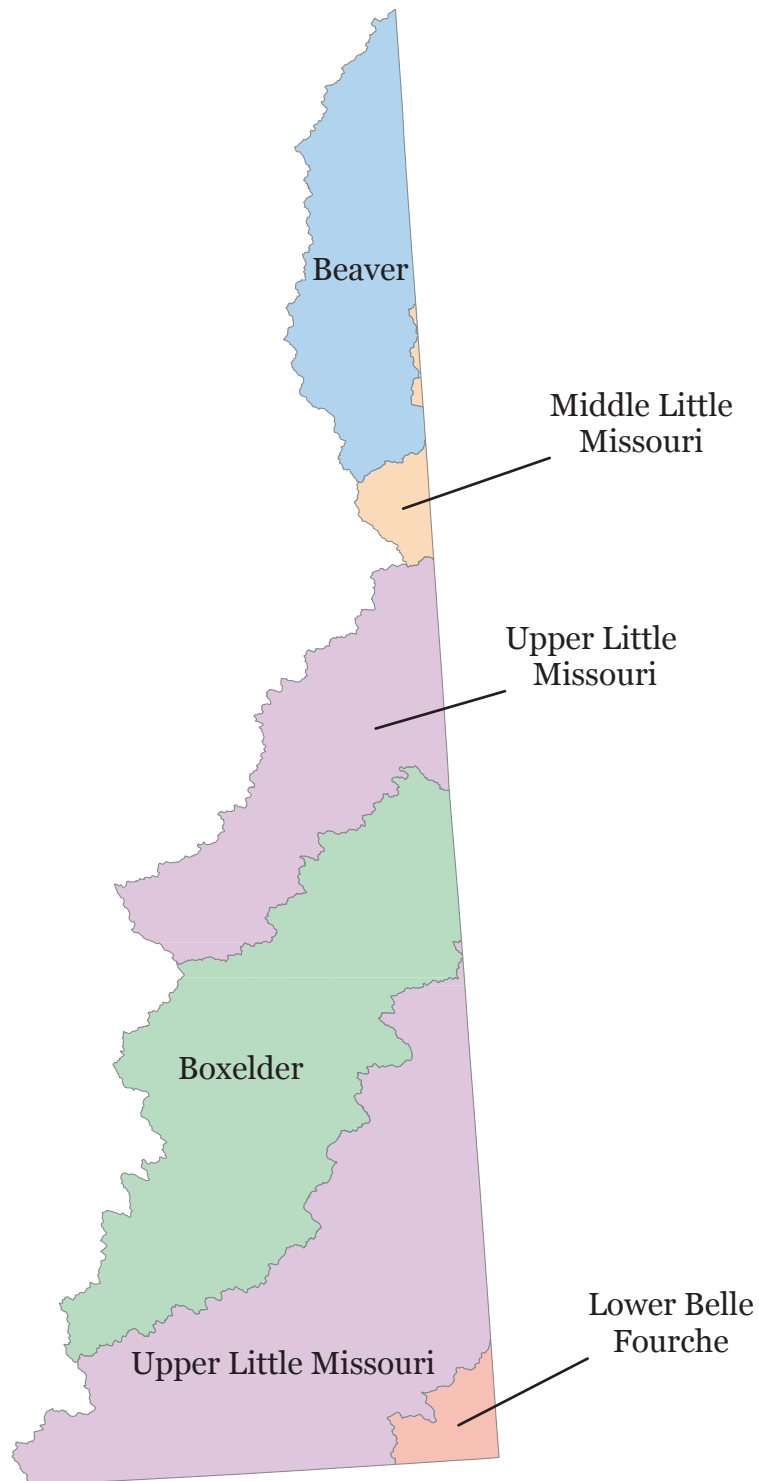
Watershed: Lower Yellowstone

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
O'Fallon	MT42L001_010	PENNEL CREEK, headwaters to mouth (O'Fallon Creek)	5	65.97	MILES	C-3	N	-	-	F	Total Dissolved Solids (TDS)	Source Unknown
O'Fallon	MT42L001_020	SANDSTONE CREEK, headwaters to mouth (O'Fallon Creek)	5	72.78	MILES	C-3	N	-	-	F	Nitrate/Nitrite (Nitrite + Nitrate as N)	Agriculture
											Nitrogen, Total	Municipal Point Source Discharges

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

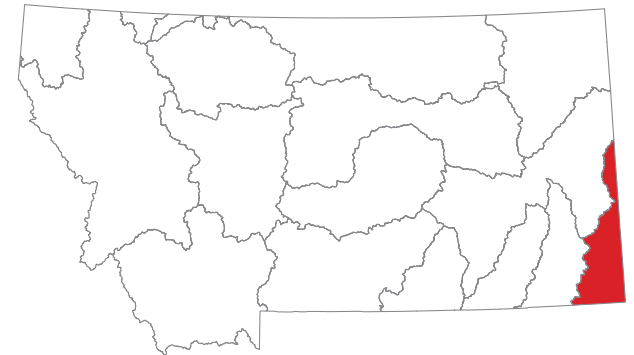
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Little Missouri/Belle Fourche Sub-Major Basin

Yellowstone River Basin

USGS HUC	HUC NAME
10110201	Upper Little Missouri
10110202	Boxelder
10110203	Middle Little Missouri
10110204	Beaver
10120202	Lower Belle Fourche



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 10110201 Upper Little Missouri

Watershed: Little Missouri/Belle Fourche

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Little Missouri	MT39F001_010	THOMPSON CREEK, Wyoming border to mouth (Little Missouri River)	5	41.22	MILES	C-3	N	-	-	X	Cadmium Copper Iron Zinc	Natural Sources
Little Missouri	MT39F001_020	LITTLE MISSOURI RIVER, Wyoming border to South Dakota border	5	106.1	MILES	C-3	N	-	-	F	Cadmium Copper Iron Lead Nitrogen, Total Phosphorus, Total Zinc	Agriculture Natural Sources Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 10110204 Beaver

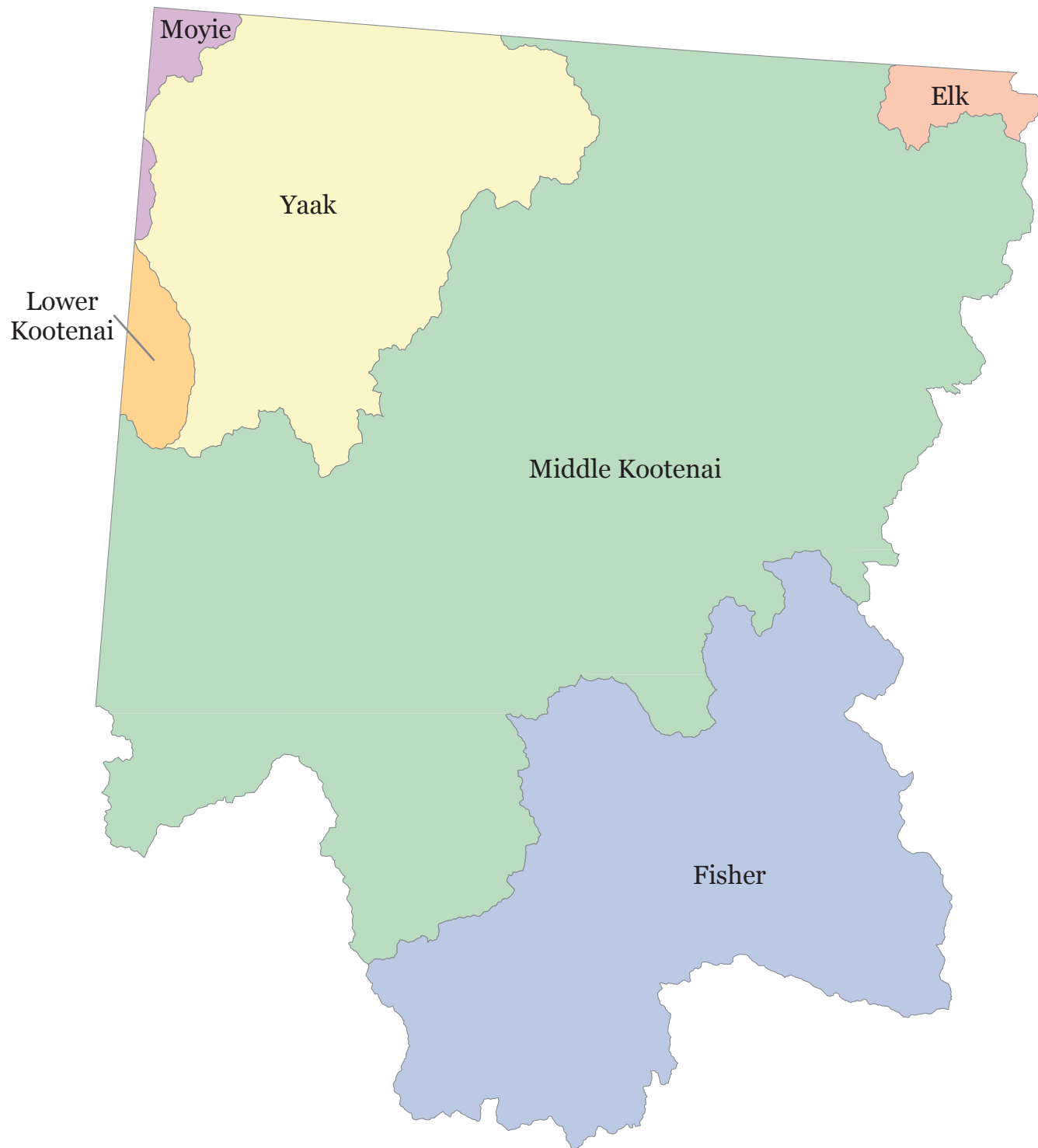
Watershed: Little Missouri/Belle Fourche

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Little Missouri	MT39G002_010	LAMESTEER NATIONAL WILDLIFE REFUGE	4C	73.6	ACRES	C-3	N	-	-	X	Cause Unknown	Agriculture

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

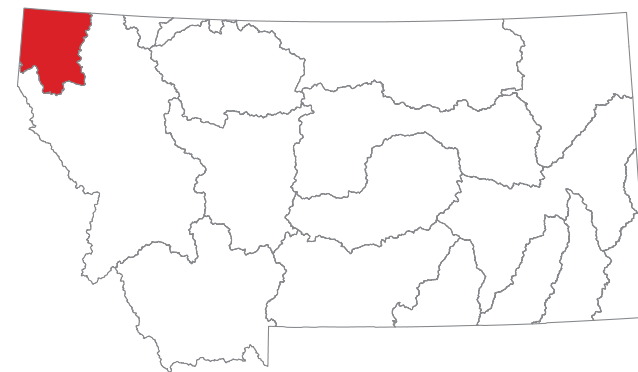
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Kootenai Sub-Major Basin

Columbia River Basin

USGS HUC	HUC NAME
17010101	Middle Kootenai
17010102	Fisher
17010103	Yaak
17010104	Lower Kootenai
17010105	Moyie
17010106	Elk



**Montana Department of
Environmental Quality**



Appendix A: Impaired Waters

HUC: 17010101 Middle Kootenai

Watershed: Kootenai

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Kootenai	MT76D001_010	KOOTENAI RIVER, Libby Dam to Yaak River	5	44.64	MILES	B-1	N	F	F	F	Flow Regime Modification Temperature	Dam or Impoundment Impacts from Hydrostructure Flow Regulation/modification
Kootenai	MT76D002_010	STANLEY CREEK, headwaters to mouth (Lake Creek)	4A	6.3	MILES	B-1	N	F	F	N	Copper Nitrate/Nitrite (Nitrite + Nitrate as N)	Impacts from Abandoned Mine Lands (Inactive) Mine Tailings Streambank Modifications/destabilization Surface Mining
Kootenai	MT76D002_020	DRY CREEK, 1 mile upstream from State Highway 56 to mouth (Lake Creek)	4C	2.1	MILES	B-1	N	X	X	X	Flow Regime Modification Physical substrate habitat alterations	Highways, Roads, Bridges, Infrastructure (New Construction)
Kootenai	MT76D002_030	KEELER CREEK, headwaters to Lake Creek	4C	9.15	MILES	B-1	N	F	X	F	Flow Regime Modification Physical substrate habitat alterations	Forest Roads (Road Construction and Use) Silviculture Activities
Kootenai	MT76D002_040	SNOWSHOE CREEK, Cabinet Wilderness boundary to mouth (Big Cherry Creek)	4A	3.62	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Lead Zinc	Impacts from Abandoned Mine Lands (Inactive)
Kootenai	MT76D002_050	BIG CHERRY CREEK, Snowshoe Creek to Mouth (Libby Creek)	4A	13.07	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Cadmium Lead Physical substrate habitat alterations Zinc	Forest Roads (Road Construction and Use) Habitat Modification - other than Hydromodification Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Kootenai	MT76D002_061	LIBBY CREEK, from 1 mi above Howard Creek to Highway 2 bridge	4C	11.24	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations	Impacts from Abandoned Mine Lands (Inactive) Placer Mining
Kootenai	MT76D002_062	LIBBY CREEK, from the Highway 2 bridge to mouth (Kootenai River)	4A	14.8	MILES	B-1	N	F	X	X	Physical substrate habitat alterations Sedimentation/Siltation	Site Clearance (Land Development or Redevelopment) Streambank Modifications/destabilization
Kootenai	MT76D002_070	LAKE CREEK, Bull Lake outlet to mouth (Kootenai River)	4A	17.57	MILES	B-1	N	F	F	N	Copper	Forest Roads (Road Construction and Use)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010101 Middle Kootenai

Watershed: Kootenai

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Kootenai	MT76D002_070	LAKE CREEK, Bull Lake outlet to mouth (Kootenai River)	4A	17.57	MILES	B-1	N	F	F	N	Nitrate/Nitrite (Nitrite + Nitrate as N) Sedimentation/Siltation	Loss of Riparian Habitat Mill Tailings Mine Tailings Natural Sources
Bobtail Creek	MT76D002_080	BOBTAIL CREEK, headwaters to mouth (Kootenai River)	4A	11.53	MILES	B-1	N	F	X	F	Flow Regime Modification Sedimentation/Siltation Turbidity	Forest Roads (Road Construction and Use) Source Unknown
Kootenai	MT76D002_100	CRIPPLE HORSE CREEK, headwaters to mouth (Lake Koocanusa)	4C	12.62	MILES	B-1	N	X	X	X	Flow Regime Modification Physical substrate habitat alterations	Silviculture Activities
Kootenai	MT76D003_010	LAKE KOOCANUSA	5	28874.5	ACRES	B-1	N	F	F	F	Flow Regime Modification Selenium	Dam or Impoundment Sources Outside State Jurisdiction or Borders
Tobacco	MT76D004_010	TOBACCO RIVER, confluence of Grave Creek & Fortine Creek to mouth (Lake Koocanusa)	4A	14.21	MILES	B-1	N	F	F	F	Physical substrate habitat alterations Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Streambank Modifications/destabilization
Tobacco	MT76D004_020	FORTINE CREEK, headwaters to mouth (Grave Creek)	4A	33.46	MILES	B-1	N	F	F	N	Algae Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation Temperature	Agriculture Channelization Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Highways, Roads, Bridges, Infrastructure (New Construction) Silviculture Activities Source Unknown Water Diversions
Tobacco	MT76D004_030	EDNA CREEK, headwaters to mouth (Fortine Creek)	4A	10.55	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting
Tobacco	MT76D004_040	SWAMP CREEK, headwaters to mouth (Fortine Creek)	4A	11.94	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010101 Middle Kootenai

Watershed: Kootenai

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Tobacco	MT76D004_040	SWAMP CREEK, headwaters to mouth (Fortine Creek)	4A	11.94	MILES	B-1	N	F	F	I		Silviculture Harvesting
Tobacco	MT76D004_050	LIME CREEK, headwaters to mouth (Fortine Creek)	4A	4.92	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Silviculture Harvesting
Grave Creek	MT76D004_060	GRAVE CREEK, Foundation Creek to mouth (Fortine Creek)	4A	17.43	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting Water Diversions
Tobacco	MT76D004_070	TERRRIAULT CREEK, headwaters to mouth (Tobacco River)	4A	9.71	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Tobacco	MT76D004_080	DEEP CREEK, headwaters to mouth (Fortine Creek)	4A	11.02	MILES	A-1	N	F	F	N	Algae Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Tobacco	MT76D004_091	SINCLAIR CREEK, confluence of un-named tributary, Lat 48.908 Long - 114.945 to mouth (Tobacco River)	4A	7.9	MILES	B-1	N	X	X	X	Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010102 Fisher

Watershed: Kootenai

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Fisher	MT76C001_010	FISHER RIVER, the Silver Butte/Pleasant Valley junction to mouth (Kootenai River)	4C	33.78	MILES	B-1	N	F	F	F	Flow Regime Modification	Channelization Streambank Modifications/destabilization
Fisher	MT76C001_020	WOLF CREEK, headwaters to mouth (Fisher River)	4A	39.26	MILES	B-1	N	F	X	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation Temperature	Channelization Streambank Modifications/destabilization
Fisher	MT76C001_030	RAVEN CREEK, headwaters to mouth (Pleasant Valley Fisher River)	4A	3.05	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Loss of Riparian Habitat Silviculture Activities Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010103 Yaak

Watershed: Kootenai

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Yaak	MT76B002_010	SEVENTEEN MILE CREEK, headwaters to mouth (Yaak River)	4A	16.41	MILES	B-1	N	X	X	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting
Yaak	MT76B002_020	LAP CREEK, headwaters to mouth (Yaak River)	4A	4.77	MILES	B-1	N	X	X	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting
Yaak	MT76B002_080	SOUTH FORK YAAK RIVER, headwaters to mouth (Yaak River)	4A	12.81	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting
Yaak	MT76B002_100	EAST FORK YAAK RIVER, headwaters to mouth (Yaak River)	4A	14.6	MILES	B-1	N	X	X	N	Nitrate/Nitrite (Nitrite + Nitrate as N)	Silviculture Activities Silviculture Harvesting Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010104 Lower Kootenai

Watershed: Kootenai

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Kootenai	MT76A001_010	KOOTENAI RIVER, confluence with Yaak River to Idaho border	5	6.09	MILES	B-1	N	F	F	F	Flow Regime Modification Temperature	Dam or Impoundment Impacts from Hydrostructure Flow Regulation/modification

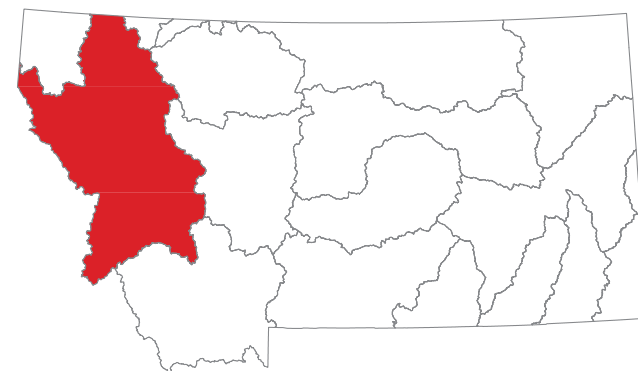
AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

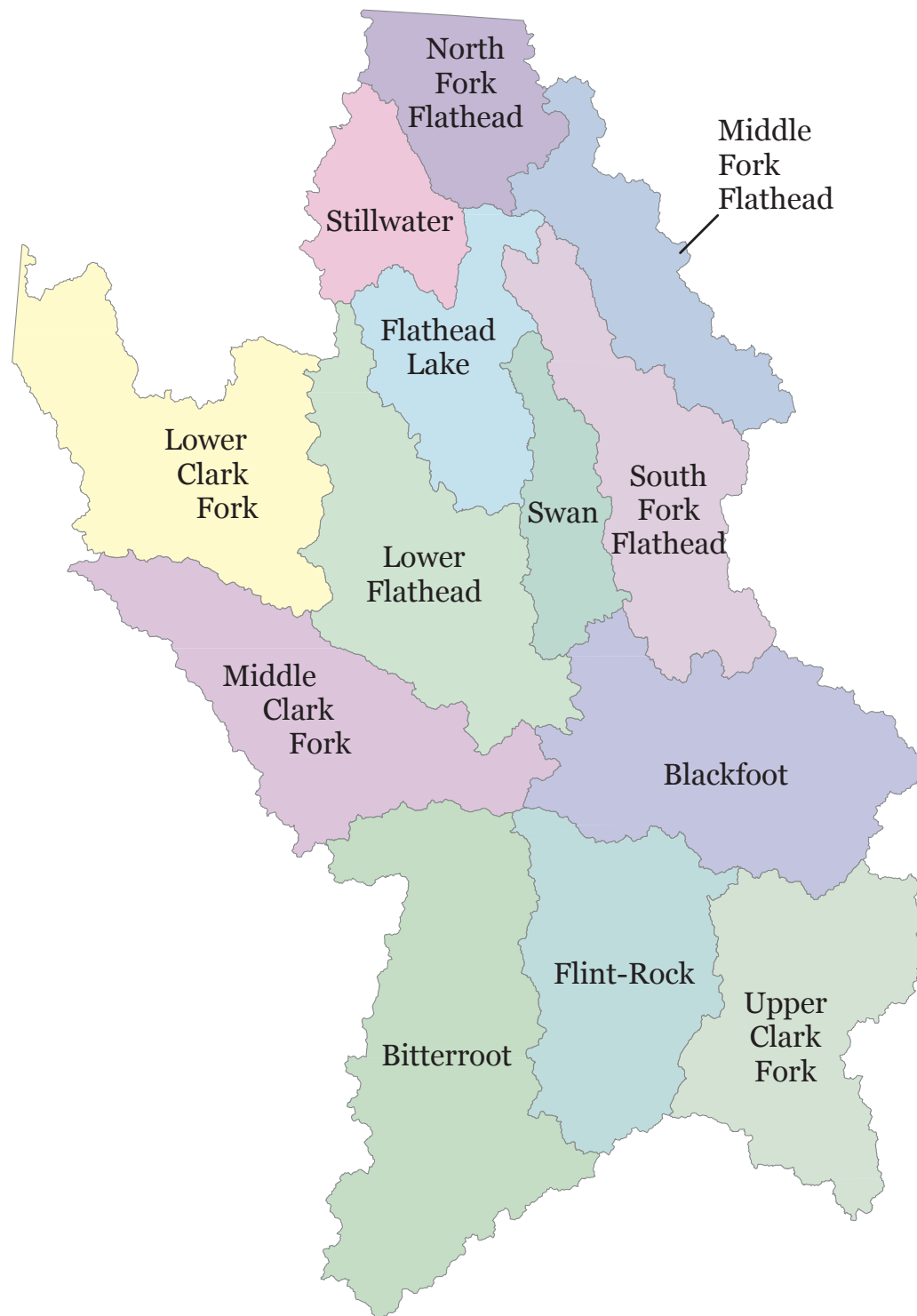
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.

Pend Oreille Sub-Major Basin Columbia River Basin

USGS HUC	HUC NAME
17010201	Upper Clark Fork
17010202	Flint-Rock
17010203	Blackfoot
17010204	Middle Clark Fork
17010205	Bitterroot
17010207	Middle Fork Flathead
17010208	Flathead Lake
17010209	South Fork Flathead
17010210	Stillwater
17010211	Swan
17010212	Lower Flathead
17010206	North Fork Flathead
17010213	Lower Clark Fork



**Montana Department of
Environmental Quality**





Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Clark Fork River	MT76G001_010	CLARK FORK RIVER, Little Blackfoot River to Flint Creek	4A	27.78	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Flow Regime Modification Iron Lead Mercury Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Mill Tailings Municipal Point Source Discharges
Clark Fork River	MT76G001_030	CLARK FORK RIVER, Cottonwood Creek to Little Blackfoot River	4A	14.94	MILES	C-1	N	F	-	N	Alteration in stream-side or littoral vegetative covers Cadmium Copper Flow Regime Modification Iron Lead Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation Zinc	Agriculture Channelization Grazing in Riparian or Shoreline Zones Mill Tailings Mine Tailings Municipal Point Source Discharges
Clark Fork River	MT76G001_040	CLARK FORK RIVER, Warm Springs Creek to Cottonwood Creek	4A	27.83	MILES	C-2	N	F	-	N	Alteration in stream-side or littoral vegetative covers Cadmium Copper Flow Regime Modification Iron	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Livestock (Grazing or Feeding Operations) Mill Tailings

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Clark Fork River	MT76G001_040	CLARK FORK RIVER, Warm Springs Creek to Cottonwood Creek	4A	27.83	MILES	C-2	N	F	-	N	Lead Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Mine Tailings Municipal (Urbanized High Density Area) Municipal Point Source Discharges
Upper Clark Fork	MT76G002_011	WARM SPRINGS CREEK, headwaters to Meyers Dam, T5N R12W S25	4C	14.74	MILES	A-1	N	F	I	F	Physical substrate habitat alterations	Channelization Highway/Road/Bridge Runoff (Non-construction Related)
Upper Clark Fork	MT76G002_012	WARM SPRINGS CREEK, Meyers Dam T5N R12W S25 to mouth (Clark Fork), T6N R9W S6	4A	17.22	MILES	B-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Flow Regime Modification Iron Lead Physical substrate habitat alterations Zinc	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Mill Tailings
Upper Clark Fork	MT76G002_030	CABLE CREEK, headwaters to mouth (Warm Springs Creek)	4A	6.36	MILES	B-1	N	F	F	F	Other anthropogenic substrate alterations Physical substrate habitat alterations Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)
Upper Clark Fork	MT76G002_040	STORM LAKE CREEK, headwaters to mouth (Un-Named canal/Ditch)	4A	9.73	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Channelization Forest Roads (Road Construction and Use) Silviculture Harvesting Water Diversions
Upper Clark Fork	MT76G002_051	MILL CREEK, headwaters to section line between Sec 27 and 28, T4N, R11W	4A	11.01	MILES	B-1	N	F	F	F	Arsenic Cadmium Copper Lead Zinc	Contaminated Sediments Mill Tailings Mine Tailings

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Upper Clark Fork	MT76G002_052	MILL CREEK, line between sections 27-28 T4N R11W to Mill-Willow Bypass diversion	4A	9.5	MILES	B-1	N	N	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Flow Regime Modification Iron Lead Zinc	Contaminated Sediments Crop Production (Irrigated) Mill Tailings
Upper Clark Fork	MT76G002_061	WILLOW CREEK, headwaters to T4N R10W S30	4A	6.13	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Iron Lead Phosphorus, Total Sedimentation/Siltation Zinc	Grazing in Riparian or Shoreline Zones Mill Tailings Natural Sources
Upper Clark Fork	MT76G002_062	WILLOW CREEK, T4N R10W S30 to mouth (Mill Creek), T4N R10W S11	4A	7.12	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Flow Regime Modification Iron Lead Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Zinc	Agriculture Atmospheric Deposition - Toxics Grazing in Riparian or Shoreline Zones Mill Tailings

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Upper Clark Fork	MT76G002_072	LOST CREEK, south boundary of Lost Creek State Park to mouth (Clark Fork River)	4A	19.07	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Copper Flow Regime Modification Lead Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Physical substrate habitat alterations Sulfate	Agriculture Contaminated Sediments Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Municipal Point Source Discharges
Upper Clark Fork	MT76G002_080	MODESTY CREEK, headwaters to mouth (Clark Fork River)	4A	14.72	MILES	B-1	N	F	N	X	Arsenic Cadmium Copper Flow Regime Modification Lead	Agriculture Atmospheric Deposition - Toxics
Upper Clark Fork	MT76G002_090	RACETRACK CREEK, the national forest boundary to mouth (Clark Fork River)	4C	11.07	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification	Agriculture Crop Production (Irrigated)
Upper Clark Fork	MT76G002_100	DEMPSEY CREEK, the national forest boundary to mouth (Clark Fork River)	4A	13.44	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Upper Clark Fork	MT76G002_110	TIN CUP JOE CREEK, Tin Cup Lake outlet to mouth (Clark Fork River)	4A	6.5	MILES	B-1	N	F	F	X	Flow Regime Modification Sedimentation/Siltation	Agriculture
Upper Clark Fork	MT76G002_120	MILL-WILLOW BYPASS, Mill and Willow Creek diversion to Silver Bow Creek (below ponds)	4A	4.2	MILES	B-1	N	F	N	F	Arsenic Cadmium Copper Lead	Mill Tailings

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Upper Clark Fork	MT76G002_120	MILL-WILLOW BYPASS, Mill and Willow Creek diversion to Silver Bow Creek (below ponds)	4A	4.2	MILES	B-1	N	F	N	F	Zinc	
Upper Clark Fork	MT76G002_131	PETERSON CREEK, headwaters to Jack Creek	4A	6.27	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated)
											Copper	Forest Roads (Road Construction and Use)
											Flow Regime Modification	Grazing in Riparian or Shoreline Zones
											Iron	Highway/Road/Bridge Runoff (Non-construction Related)
											Lead	Impacts from Abandoned Mine Lands (Inactive)
											Nitrogen, Total	Silviculture Activities
											Phosphorus, Total	Silviculture Harvesting
											Sedimentation/Siltation	Source Unknown
											Total Kjehldahl Nitrogen (TKN)	
Upper Clark Fork	MT76G002_132	PETERSON CREEK, Jack Creek to mouth (Clark Fork River)	4A	7.1	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers	Agriculture
											Flow Regime Modification	Crop Production (Irrigated)
											Iron	Grazing in Riparian or Shoreline Zones
											Nitrogen, Total	Impacts from Abandoned Mine Lands (Inactive)
											Phosphorus, Total	
											Physical substrate habitat alterations	
											Sedimentation/Siltation	
											Temperature	
Upper Clark Fork	MT76G002_140	ANTELOPE CREEK, headwaters to mouth (Gardner Ditch)	4A	6.08	MILES	B-1	N	F	F	X	Flow Regime Modification	Agriculture
											Sedimentation/Siltation	Source Unknown
												Streambank Modifications/destabilization
Upper Clark Fork	MT76G003_020	SILVER BOW CREEK, Blacktail Creek to Warm Springs Creek (Clark Fork River)	4A	29.18	MILES	I	N	F	N	N	Arsenic	Grazing in Riparian or Shoreline Zones
											Cadmium	Impacts from Abandoned Mine Lands (Inactive)
											Copper	Livestock (Grazing or Feeding Operations)
											Lead	Municipal Point Source Discharges
											Mercury	Site Clearance (Land Development or Redevelopment)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Upper Clark Fork	MT76G003_020	SILVER BOW CREEK, Blacktail Creek to Warm Springs Creek (Clark Fork River)	4A	29.18	MILES	I	N	F	N	N	Nitrate Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation Zinc	
Upper Clark Fork	MT76G003_030	GERMAN GULCH, headwaters to mouth (Silver Bow Creek)	4A	8.24	MILES	B-1	N	F	N	F	Arsenic Cyanide Selenium	Impacts from Abandoned Mine Lands (Inactive) Placer Mining
Upper Clark Fork	MT76G003_031	BEEFSTRAIGHT CREEK, Minnesota Gulch to mouth (German Gulch)	4A	3.5	MILES	B-1	N	X	X	X	Cyanide	Mine Tailings
Upper Clark Fork	MT76G003_040	BROWNS GULCH CREEK, headwaters to the mouth (Silver Bow Creek)	4A	19.31	MILES	B-1	N	X	X	X	Sedimentation/Siltation	Agriculture Silviculture Harvesting
Little Blackfoot	MT76G004_010	LITTLE BLACKFOOT RIVER, Dog Creek to mouth (Clark Fork River)	4A	26.5	MILES	B-1	N	X	N	N	Alteration in stream-side or littoral vegetative covers Aluminum Arsenic Flow Regime Modification Lead Phosphorus, Total Sedimentation/Siltation	Agriculture Channelization Impacts from Abandoned Mine Lands (Inactive) Livestock (Grazing or Feeding Operations) On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Rangeland Grazing Residential Districts
Little Blackfoot	MT76G004_020	LITTLE BLACKFOOT RIVER, the headwaters to Dog Creek	4A	22.54	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Aluminum Arsenic Cadmium Copper Cyanide Lead Sedimentation/Siltation	Channelization Crop Production (Crop Land or Dry Land) Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Livestock (Grazing or Feeding Operations)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Little Blackfoot	MT76G004_032	SPOTTED DOG CREEK, forest boundary to mouth (Little Blackfoot River)	4A	10.67	MILES	B-1	N	X	F	N	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Little Blackfoot	MT76G004_040	ELLISTON CREEK, headwaters to mouth (Little Blackfoot River)	4A	4.95	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Channelization Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Silviculture Harvesting Site Clearance (Land Development or Redevelopment)
Little Blackfoot	MT76G004_051	TELEGRAPH CREEK, headwaters to Hahn Creek	4A	5.35	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Aluminum Arsenic Beryllium Cadmium Copper Lead Sedimentation/Siltation Zinc	Forest Roads (Road Construction and Use) Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Little Blackfoot	MT76G004_052	TELEGRAPH CREEK, Hahn Creek to mouth (Little Blackfoot River)	4A	2.51	MILES	B-1	N	X	N	X	Aluminum Cadmium Copper Lead Mercury Zinc	Impacts from Abandoned Mine Lands (Inactive)
Little Blackfoot	MT76G004_054	O'KEEFE CREEK, headwaters to mouth (Telegraph Creek)	4A	2	MILES	B-1	N	X	I	X	Cadmium Copper Zinc	Impacts from Abandoned Mine Lands (Inactive)
Little Blackfoot	MT76G004_055	SALLY ANN CREEK, headwaters to	4A	1.6	MILES	B-1	N	X	I	X	Cadmium	Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Little Blackfoot	MT76G004_055	SALLY ANN CREEK, headwaters to mouth (O'Keefe Creek)	4A	1.6	MILES	B-1	N	X	I	X	Copper Zinc	Mine Tailings
Little Blackfoot	MT76G004_060	MONARCH CREEK, headwaters to mouth (Ontario Creek)	4A	4.68	MILES	B-1	N	X	F	X	Aluminum Copper Lead Mercury pH	Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Little Blackfoot	MT76G004_071	DOG CREEK, headwaters to Meadow Creek	4A	4.33	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Aluminum Arsenic Cadmium Copper Lead Sedimentation/Siltation Zinc	Channelization Impacts from Abandoned Mine Lands (Inactive) Livestock (Grazing or Feeding Operations) Mine Tailings Rangeland Grazing Silviculture Harvesting
Little Blackfoot	MT76G004_072	DOG CREEK, Meadow Creek to mouth (Little Blackfoot River)	4A	13.63	MILES	B-1	N	X	I	N	Alteration in stream-side or littoral vegetative covers Aluminum Copper Lead Phosphorus, Total Sedimentation/Siltation	Agriculture Channelization Impacts from Abandoned Mine Lands (Inactive) Livestock (Grazing or Feeding Operations) Mine Tailings On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Rangeland Grazing Rural (Residential Areas)
Little Blackfoot	MT76G004_079	AMERICAN GULCH CREEK, headwaters to mouth (Dog Creek)	4A	2.7	MILES	B-1	X	X	N	X	Arsenic	Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Little Blackfoot	MT76G004_080	SNOWSHOE CREEK, headwaters to mouth (Little Blackfoot River)	4A	11.45	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification	Crop Production (Crop Land or Dry Land) Crop Production (Irrigated)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Little Blackfoot	MT76G004_080	SNOWSHOE CREEK, headwaters to mouth (Little Blackfoot River)	4A	11.45	MILES	B-1	N	X	X	N	Nitrate/Nitrite (Nitrite + Nitrate as N) Sedimentation/Siltation	Dredge Mining Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Water Diversions
Little Blackfoot	MT76G004_091	CARPENTER CREEK, headwaters to Basin Creek	4C	3.67	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Other anthropogenic substrate alterations Physical substrate habitat alterations	Impacts from Abandoned Mine Lands (Inactive)
Little Blackfoot	MT76G004_092	CARPENTER CREEK, Basin Creek to mouth (Little Blackfoot River)	4A	4.87	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Other anthropogenic substrate alterations Phosphorus, Total Physical substrate habitat alterations	Crop Production (Crop Land or Dry Land) Impacts from Abandoned Mine Lands (Inactive) Livestock (Grazing or Feeding Operations) On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
Little Blackfoot	MT76G004_100	WOODSON GULCH, headwaters to mouth (Carpenter Creek), T11N R7W S29	4C	.84	MILES	B-1	N	F	F	X	Physical substrate habitat alterations	Impacts from Abandoned Mine Lands (Inactive) Placer Mining
Little Blackfoot	MT76G004_112	THREEMILE CREEK, Quigley Ranch Reservoir to mouth (Little Blackfoot River)	4A	7.46	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Managed Pasture Grazing On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Rangeland Grazing
Little Blackfoot	MT76G004_120	TROUT CREEK, headwaters to mouth (Little Blackfoot River)	4A	11.5	MILES	B-1	N	X	X	X	Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Silviculture Harvesting
Little Blackfoot	MT76G004_130	ONTARIO CREEK, headwaters to mouth (Little Blackfoot River)	4A	6.4	MILES	B-1	N	X	F	X	Aluminum	Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Little Blackfoot	MT76G004_130	ONTARIO CREEK, headwaters to mouth (Little Blackfoot River)	4A	6.4	MILES	B-1	N	X	F	X	Cadmium Copper Lead Zinc	
Upper Clark Fork	MT76G005_071	DUNKLEBERG CREEK, headwaters to T9N R12W S2 SW	4A	3.91	MILES	B-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Iron Lead Zinc	Grazing in Riparian or Shoreline Zones Mine Tailings
Upper Clark Fork	MT76G005_072	DUNKLEBERG CREEK, T9N R12W S2 to mouth (Un-named Canal), T10N R11W S30	4A	4.05	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Copper Iron Lead Nitrogen, Total Phosphorus, Total Zinc	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Rangeland Grazing Streambank Modifications/destabilization
Upper Clark Fork	MT76G005_081	HOOVER CREEK, headwaters to Miller Lake	4A	5.17	MILES	B-1	N	X	X	N	Phosphorus, Total Sedimentation/Siltation Turbidity	Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related) Streambank Modifications/destabilization
Upper Clark Fork	MT76G005_082	HOOVER CREEK, Miller Lake to mouth (Clark Fork River)	4A	7.05	MILES	B-1	N	X	X	N	Flow Regime Modification Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations	Agriculture Dam Construction (Other than Upstream Flood Control Projects) Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010201 Upper Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Upper Clark Fork	MT76G005_082	HOOVER CREEK, Miller Lake to mouth (Clark Fork River)	4A	7.05	MILES	B-1	N	X	X	N	Sedimentation/Siltation	Livestock (Grazing or Feeding Operations) Streambank Modifications/destabilization
Upper Clark Fork	MT76G005_091	GOLD CREEK, headwaters to National Forest boundary	4A	8.1	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Lead	Impacts from Abandoned Mine Lands (Inactive) Mine Tailings
Upper Clark Fork	MT76G005_092	GOLD CREEK, the forest boundary to mouth (Clark Fork River)	4A	7.77	MILES	B-1	N	F	F	N	Flow Regime Modification Iron Lead Phosphorus, Total	Agriculture Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)
Upper Clark Fork	MT76G005_100	BROCK CREEK, headwaters to mouth (Clark Fork River)	4A	12.5	MILES	B-1	X	F	F	N	Sedimentation/Siltation	Streambank Modifications/destabilization
Upper Clark Fork	MT76G005_111	WARM SPRINGS CREEK, headwaters to line between R9W and R10W	4A	9.54	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Highway/Road/Bridge Runoff (Non-construction Related) Silviculture Activities
Upper Clark Fork	MT76G005_112	WARM SPRINGS CREEK, from line between R9W and R10W to mouth (Clark Fork River)	4A	6.28	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones
Little Blackfoot	MT76G006_010	UN-NAMED CREEK, headwaters to mouth (Ontario Creek), T8N R6W S27	4A	.8	MILES	B-1	N	X	N	X	Aluminum Arsenic Cadmium Copper Iron Lead Mercury Zinc pH	Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010202 Flint-Rock

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Clark Fork River	MT76E001_010	CLARK FORK RIVER, Flint Creek to Blackfoot River	4A	50.93	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Cadmium Chlorophyll-a Copper Iron Lead Mercury Nitrogen, Total Phosphorus, Total Zinc	Channelization Grazing in Riparian or Shoreline Zones Mill Tailings Mine Tailings Municipal Point Source Discharges
Rock	MT76E002_020	EAST FORK ROCK CREEK, East Fork Reservoir to mouth (Middle Fork Rock Creek)	4A	9.74	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Agriculture Crop Production (Irrigated) Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification Source Unknown
Rock	MT76E002_030	WEST FORK ROCK CREEK, headwaters to mouth (Rock Creek)	4A	25.15	MILES	B-1	N	X	F	X	Aluminum Sedimentation/Siltation	Impacts from Abandoned Mine Lands (Inactive) Placer Mining Subsurface (Hardrock) Mining
Rock	MT76E002_040	UPPER WILLOW CREEK, headwaters to mouth (Rock Creek)	4C	21.7	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Physical substrate habitat alterations	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Rock	MT76E002_050	BREWSTER CREEK, East Fork to mouth (Rock Creek)	4C	4.57	MILES	B-1	N	X	X	F	Fish Passage Barrier Flow Regime Modification	Crop Production (Irrigated) Source Unknown
Rock	MT76E002_060	SOUTH FORK ANTELOPE CREEK,	4A	2.93	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral	Forest Roads (Road Construction and Use)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010202 Flint-Rock

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Rock	MT76E002_060	SOUTH FORK ANTELOPE CREEK, headwaters to mouth (Antelope Creek), T6N R15W S22	4A	2.93	MILES	B-1	N	X	X	N	vegetative covers Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Silviculture Activities
Rock	MT76E002_061	ANTELOPE CREEK, headwaters to mouth (Rock Creek)	4A	6.9	MILES	B-1	N	X	X	X	Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Unspecified Unpaved Road or Trail
Rock	MT76E002_070	QUARTZ GULCH, headwaters to mouth (Eureka Gulch)	4A	3.43	MILES	B-1	N	X	F	X	Alteration in stream-side or littoral vegetative covers Aluminum Lead Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Placer Mining Silviculture Activities
Rock	MT76E002_080	BASIN GULCH, headwaters to mouth (Eureka Gulch)	4A	1.45	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic	Impacts from Abandoned Mine Lands (Inactive) Placer Mining
Rock	MT76E002_090	EUREKA GULCH, confluence of Quartz Gulch and Basin Gulch to mouth (Un-Named Ditch)	4A	1.93	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Arsenic Mercury Sedimentation/Siltation	Natural Sources Open Pit Mining Placer Mining
Rock	MT76E002_100	SCOTCHMAN GULCH, headwaters to mouth (Upper Willow Creek)	4A	6.88	MILES	B-1	N	X	F	N	Aluminum Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Placer Mining Rangeland Grazing Silviculture Harvesting
Rock	MT76E002_110	SLUICE GULCH, headwaters to mouth (Rock Creek)	4A	6.33	MILES	B-1	N	X	N	N	Alteration in stream-side or littoral vegetative covers Arsenic	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010202 Flint-Rock

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Rock	MT76E002_110	SLUICE GULCH, headwaters to mouth (Rock Creek)	4A	6.33	MILES	B-1	N	X	N	N	Copper Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Sedimentation/Siltation	
Rock	MT76E002_120	FLAT GULCH, headwaters to mouth (Rock Creek)	4A	2.99	MILES	B-1	N	X	F	N	Aluminum Iron Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Rangeland Grazing Silviculture Activities
Rock	MT76E002_160	MINERS GULCH, headwaters to mouth (Upper Willow Creek), T8N R15W S23	4A	5.42	MILES	B-1	N	X	F	F	Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Silviculture Activities Source Unknown
Flint	MT76E003_011	FLINT CREEK, Georgetown Lake to confluence with Boulder Creek	4A	28.09	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Copper Flow Regime Modification Lead Mercury Phosphorus, Total Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)
Flint	MT76E003_012	FLINT CREEK, Boulder Creek to mouth (Clark Fork River)	4A	16.92	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Arsenic Copper Iron Lead Nitrogen, Total	Agriculture Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Streambank Modifications/destabilization

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010202 Flint-Rock

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Flint	MT76E003_012	FLINT CREEK, Boulder Creek to mouth (Clark Fork River)	4A	16.92	MILES	B-1	N	F	N	F	Phosphorus, Total Sedimentation/Siltation Turbidity	
Flint	MT76E003_020	DOUGLAS CREEK, confluence of Middle and South Forks to mouth (Flint Creek), T9N R13W S10	4A	7.07	MILES	B-1	N	F	X	F	Nitrogen, Nitrate Phosphorus, Total Physical substrate habitat alterations	Channelization Impacts from Abandoned Mine Lands (Inactive) Silviculture Activities
Flint	MT76E003_030	NORTH FORK DOUGLAS CREEK, headwaters to mouth (Middle Fork Douglas Creek)	4A	3.13	MILES	B-1	N	X	N	X	Alteration in stream-side or littoral vegetative covers Cadmium Copper Lead Zinc	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive)
Flint	MT76E003_040	FRED BURR CREEK, Fred Burr Lake to mouth (Flint Creek)	4A	11.21	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Arsenic Lead Mercury	Agriculture Grazing in Riparian or Shoreline Zones Mill Tailings
Flint	MT76E003_050	SOUTH FORK LOWER WILLOW CREEK, headwaters to mouth (Lower Willow Creek Reservoir)	4A	13.34	MILES	B-1	N	F	N	X	Antimony Arsenic Cadmium Copper Lead Mercury	Mill Tailings Mine Tailings
Flint	MT76E003_060	BOULDER CREEK, headwaters to mouth (Flint Creek)	4A	14.23	MILES	B-1	N	F	N	X	Arsenic Lead Mercury Physical substrate habitat alterations Zinc	Impacts from Abandoned Mine Lands (Inactive) Silviculture Harvesting

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010202 Flint-Rock

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Flint	MT76E003_070	BARNES CREEK, headwaters to mouth (Flint Creek)	4A	8.87	MILES	B-1	N	X	I	N	Chlorophyll-a	Crop Production (Irrigated)
											Iron	Impacts from Abandoned Mine Lands (Inactive)
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Managed Pasture Grazing
											Nitrogen, Total	
											Phosphorus, Total	
											Sedimentation/Siltation	
Flint	MT76E003_090	PRINCETON GULCH, headwaters to mouth (Boulder Creek)	4A	3.89	MILES	B-1	N	F	X	X	Nitrate	Placer Mining
											Physical substrate habitat alterations	
Flint	MT76E003_100	DOUGLAS CREEK, headwaters to where stream ends, T7N R14W S25	4A	3.76	MILES	B-1	N	X	N	I	Antimony	Impacts from Abandoned Mine Lands (Inactive)
											Arsenic	Silviculture Activities
											Cadmium	Streambank Modifications/destabilization
											Copper	
											Iron	
											Lead	
											Mercury	
											Physical substrate habitat alterations	
											Sedimentation/Siltation	
Zinc												
Flint	MT76E003_110	SMART CREEK, headwaters to mouth (Flint Creek), T9N R13W S21	4A	11.6	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers	Freshets or Major Flooding
											Arsenic	Grazing in Riparian or Shoreline Zones
											Iron	Impacts from Abandoned Mine Lands (Inactive)
											Nitrogen, Total	Silviculture Harvesting
											Phosphorus, Total	Watershed Runoff following Forest Fire
											Sedimentation/Siltation	
Flint	MT76E003_130	CAMP CREEK, headwaters to terminus, T7N R14W S25	4A	1.8	MILES	B-1	N	F	N	X	Alteration in stream-side or littoral vegetative covers	Channelization
											Arsenic	Habitat Modification - other than Hydromodification
											Cadmium	Impacts from Abandoned Mine Lands (Inactive)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010202 Flint-Rock

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Flint	MT76E003_130	CAMP CREEK, headwaters to terminus, T7N R14W S25	4A	1.8	MILES	B-1	N	F	N	X	Copper Fish Passage Barrier Lead Zinc	
Flint	MT76E003_140	ROYAL GOLD CREEK, headwaters to mouth (Boulder Creek)	4A	3.3	MILES	B-1	N	X	X	X	Copper Lead	Impacts from Abandoned Mine Lands (Inactive)
Clark Fork - Drummond	MT76E004_010	WALLACE CREEK, headwaters to mouth (Clark Fork River)	4A	4.32	MILES	B-1	N	F	F	X	Copper	Impacts from Abandoned Mine Lands (Inactive)
Clark Fork - Drummond	MT76E004_020	CRAMER CREEK, headwaters to mouth (Clark Fork River)	4A	11.98	MILES	B-1	N	F	N	N	Aluminum Cause Unknown Lead Physical substrate habitat alterations Sedimentation/Siltation	Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Source Unknown
Clark Fork - Drummond	MT76E004_030	TENMILE CREEK, headwaters to mouth (Bear Creek-Clark Fork River)	4A	4.92	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Silviculture Activities
Clark Fork - Drummond	MT76E004_041	HARVEY CREEK, headwaters to Grouse Gulch	4C	11.96	MILES	B-1	N	F	F	F	Physical substrate habitat alterations	Streambank Modifications/destabilization
Clark Fork - Drummond	MT76E004_042	HARVEY CREEK, Grouse Gulch to mouth (Clark Fork River)	4C	4.01	MILES	B-1	N	F	F	X	Flow Regime Modification Physical substrate habitat alterations	Agriculture Streambank Modifications/destabilization
Clark Fork - Drummond	MT76E004_050	MULKEY CREEK, headwaters to mouth (Clark Fork River)	4A	5.99	MILES	B-1	N	X	X	N	Sedimentation/Siltation	Low Water Crossing Source Unknown
Clark Fork - Drummond	MT76E004_060	RATTLER GULCH, headwaters to mouth (Clark Fork River), T11N R13W S22	4A	8.08	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Flow Regime Modification Phosphorus, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Silviculture Harvesting

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010202 Flint-Rock

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Clark Fork - Drummond	MT76E004_070	DEEP CREEK, headwaters to mouth (Bear Creek, which is a tributary to Clark Fork River near Bearmouth)	4A	5.12	MILES	B-1	N	F	F	N	Chlorophyll-a	Placer Mining
											Flow Regime Modification	Silviculture Harvesting
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Subsurface (Hardrock) Mining
											Sedimentation/Siltation	
Clark Fork - Drummond	MT76E004_080	ANTELOPE CREEK, headwaters to mouth (Clark Fork River)	4C	8.45	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones
											Physical substrate habitat alterations	Loss of Riparian Habitat
												Streambank Modifications/destabilization

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010203 Blackfoot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Blackfoot Headwaters	MT76F001_010	BLACKFOOT RIVER, headwaters to Landers Fork	4A	16.11	MILES	B-1	N	X	N	F	Cadmium Copper Iron Lead Manganese Zinc	Subsurface (Hardrock) Mining Surface Mining
Blackfoot Headwaters	MT76F001_020	BLACKFOOT RIVER, Landers Fork to Nevada Creek	4A	48	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Aluminum Cadmium Iron Sedimentation/Siltation Zinc	Agriculture Silviculture Harvesting Subsurface (Hardrock) Mining Surface Mining
Middle Blackfoot	MT76F001_031	BLACKFOOT RIVER, Nevada Creek to Monture Creek	4A	21.44	MILES	B-1	N	F	F	F	Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Crop Production (Irrigated) Source Unknown
Middle Blackfoot	MT76F001_032	BLACKFOOT RIVER, Monture Creek to Belmont Creek	4A	23.53	MILES	B-1	N	F	F	F	Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Source Unknown Streambank Modifications/destabilization Water Diversions
Blackfoot Headwaters	MT76F002_020	WILLOW CREEK, Sandbar Creek to mouth (Blackfoot River), T15N R7W S34	4A	2.94	MILES	B-1	N	F	F	F	Flow Regime Modification Sedimentation/Siltation	Highway/Road/Bridge Runoff (Non-construction Related) Streambank Modifications/destabilization
Blackfoot Headwaters	MT76F002_030	POORMAN CREEK, headwaters to mouth (Blackfoot River)	4A	14.31	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Cadmium Copper Flow Regime Modification Lead	Construction Stormwater Discharge (Permitted) Forest Roads (Road Construction and Use) Impacts from Abandoned Mine Lands (Inactive) Natural Sources Silviculture Activities

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010203 Blackfoot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Blackfoot Headwaters	MT76F002_030	POORMAN CREEK, headwaters to mouth (Blackfoot River)	4A	14.31	MILES	B-1	N	F	F	X	Sedimentation/Siltation	Water Diversions
Blackfoot Headwaters	MT76F002_040	BEARTRAP CREEK, Mike Horse Creek to mouth (Blackfoot River)	4A	.52	MILES	B-1	N	F	N	F	Cadmium	Acid Mine Drainage
											Copper	Mine Tailings
											Iron	Subsurface (Hardrock) Mining
											Lead	Surface Mining
											Manganese	
											Zinc	
Blackfoot Headwaters	MT76F002_060	SANDBAR CREEK, forks to mouth (Willow Creek)	4A	1.67	MILES	B-1	N	F	N	F	Aluminum	Acid Mine Drainage
											Copper	Highway/Road/Bridge Runoff (Non-construction Related)
											Iron	Impacts from Abandoned Mine Lands (Inactive)
											Manganese	Mine Tailings
											Sedimentation/Siltation	Subsurface (Hardrock) Mining
												Surface Mining
Blackfoot Headwaters	MT76F002_070	ARRASTRA CREEK, headwaters to mouth (Blackfoot River)	4A	12.86	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Agriculture
												Highway/Road/Bridge Runoff (Non-construction Related)
												Streambank Modifications/destabilization
Blackfoot Headwaters	MT76F003_010	MIKE HORSE CREEK, headwaters to mouth (Beartrap Creek)	4A	.69	MILES	B-1	N	X	N	X	Aluminum	Acid Mine Drainage
											Cadmium	Impacts from Abandoned Mine Lands (Inactive)
											Copper	Mine Tailings
											Iron	
											Lead	
											Manganese	
											Zinc	
Nevada Creek	MT76F003_011	NEVADA CREEK, headwaters to Nevada Lake	4A	19.84	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers	Agriculture
											Nitrogen, Total	Grazing in Riparian or Shoreline Zones
											Phosphorus, Total	Placer Mining
												Streambank Modifications/destabilization

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010203 Blackfoot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Nevada Creek	MT76F003_011	NEVADA CREEK, headwaters to Nevada Lake	4A	19.84	MILES	B-1	N	F	F	X	Physical substrate habitat alterations Sediment Temperature Total Kjehldahl Nitrogen (TKN)	
Nevada Creek	MT76F003_012	NEVADA CREEK, Nevada Lake to mouth (Blackfoot River)	4A	27.95	MILES	B-1	N	F	F	X	Flow Regime Modification Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation Temperature Total Kjehldahl Nitrogen (TKN)	Agriculture Source Unknown Streambank Modifications/destabilization
Nevada Creek	MT76F003_021	JEFFERSON CREEK, headwaters to 1 mile above confluence with Madison Gulch	4A	3.72	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Channelization Placer Mining Rangeland Grazing Streambank Modifications/destabilization
Nevada Creek	MT76F003_022	JEFFERSON CREEK, 1 mile above Madison Gulch to mouth (Nevada Creek)	4A	3.39	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Aluminum Flow Regime Modification Iron Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Channelization Crop Production (Irrigated) Dredge Mining Grazing in Riparian or Shoreline Zones Source Unknown Streambank Modifications/destabilization
Nevada Creek	MT76F003_030	GALLAGHER CREEK, headwaters to mouth (Nevada Creek)	4A	7.34	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Rangeland Grazing

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010203 Blackfoot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Nevada Creek	MT76F003_030	GALLAGHER CREEK, headwaters to mouth (Nevada Creek)	4A	7.34	MILES	B-1	N	F	F	N	Total Kjehldahl Nitrogen (TKN)	
Nevada Creek	MT76F003_040	BRAZIEL CREEK, headwaters to mouth (Nevada Creek)	4A	3.95	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Highway/Road/Bridge Runoff (Non-construction Related) Rangeland Grazing Silviculture Activities
Nevada Creek	MT76F003_050	MCELWAIN CREEK, diversion of Company Ditch to mouth (Nevada Creek), T13N R11W S18	4A	2.1	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Water Diversions
Nevada Creek	MT76F003_060	BLACK BEAR CREEK, headwaters to mouth (Bear Creek), T12N R12W S22	4A	7.67	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Total Kjehldahl Nitrogen (TKN)	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Managed Pasture Grazing Silviculture Harvesting
Nevada Creek	MT76F003_071	WASHINGTON CREEK, headwaters to Cow Gulch	4A	5.84	MILES	B-1	N	F	X	X	Flow Regime Modification Physical substrate habitat alterations Sedimentation/Siltation	Dredge Mining Impacts from Abandoned Mine Lands (Inactive) Placer Mining Source Unknown
Nevada Creek	MT76F003_072	WASHINGTON CREEK, Cow Gulch to mouth (Nevada Creek)	4A	4.44	MILES	B-1	N	F	X	X	Flow Regime Modification Iron Sedimentation/Siltation	Agriculture Highway/Road/Bridge Runoff (Non-construction Related) Impacts from Abandoned Mine Lands (Inactive) Source Unknown Streambank Modifications/destabilization
Nevada Creek	MT76F003_081	DOUGLAS CREEK, headwaters to Murray Creek	4A	13.02	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010203 Blackfoot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *		Source Name *
							AqL	Ag	DW	Rec			
Nevada Creek	MT76F003_081	DOUGLAS CREEK, headwaters to Murray Creek	4A	13.02	MILES	B-1	N	F	N	N	Arsenic		Grazing in Riparian or Shoreline Zones
											Chlorophyll-a		Rangeland Grazing
											Flow Regime Modification		Source Unknown
											Nitrate/Nitrite (Nitrite + Nitrate as N)		Water Diversions
											Nitrogen, Total		
											Phosphorus, Total		
											Sedimentation/Siltation		
											Temperature		
Nevada Creek	MT76F003_082	DOUGLAS CREEK, Murray Creek to mouth (Nevada-Cottonwood Creeks)	4A	10.91	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers		Crop Production (Irrigated)
											Arsenic		Grazing in Riparian or Shoreline Zones
											Flow Regime Modification		Loss of Riparian Habitat
											Iron		Rangeland Grazing
											Nitrogen, Total		Source Unknown
											Phosphorus, Total		Water Diversions
											Sedimentation/Siltation		
											Temperature		
Nevada Creek	MT76F003_090	COTTONWOOD CREEK, South Fork Cottonwood Creek to mouth (Douglas Creek)	4A	6.77	MILES	B-1	N	F	X	X	Flow Regime Modification		Agriculture
											Sedimentation/Siltation		Loss of Riparian Habitat
											Temperature		Rangeland Grazing
													Silviculture Activities
Nevada Creek	MT76F003_100	NEVADA SPRING CREEK, headwaters to mouth (Nevada Creek)	4A	5.78	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers		Grazing in Riparian or Shoreline Zones
											Sedimentation/Siltation		Impacts from Hydrostructure Flow Regulation/modification
Nevada Creek	MT76F003_120	MURRAY CREEK, headwaters to mouth (Douglas Creek), T12N R12W S6	4A	8.83	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers		Crop Production (Irrigated)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010203 Blackfoot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Nevada Creek	MT76F003_120	MURRAY CREEK, headwaters to mouth (Douglas Creek), T12N R12W S6	4A	8.83	MILES	B-1	N	F	N	N	Arsenic	Grazing in Riparian or Shoreline Zones
											Chlorophyll-a	Potash Mining
											Flow Regime Modification	Rangeland Grazing
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Silviculture Activities
											Nitrogen, Total	Source Unknown
											Phosphorus, Total	Streambank Modifications/destabilization
											Sedimentation/Siltation	Water Diversions
											Temperature	
											Total Kjeldahl Nitrogen (TKN)	
Nevada Creek	MT76F003_130	BUFFALO GULCH, headwaters to mouth (Nevada Creek)	4A	6.36	MILES	B-1	N	X	X	X	Physical substrate habitat alterations	Forest Roads (Road Construction and Use)
											Sedimentation/Siltation	Livestock (Grazing or Feeding Operations)
												Silviculture Activities
Middle Blackfoot	MT76F004_010	FRAZIER CREEK, headwaters to mouth (Blackfoot River), T14N R12W S28	4A	4.44	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated)
											Flow Regime Modification	Grazing in Riparian or Shoreline Zones
											Nitrogen, Total	Hydrostructure Impacts on Fish Passage
											Phosphorus, Total	Water Diversions
											Sedimentation/Siltation	
											Total Kjeldahl Nitrogen (TKN)	
Middle Blackfoot	MT76F004_040	COTTONWOOD CREEK, 10 miles upstream to mouth (Blackfoot River)	4A	12.05	MILES	B-1	N	F	F	F	Sedimentation/Siltation	
Middle Blackfoot	MT76F004_050	WALES CREEK, reservoir outlet to mouth (Blackfoot River)	4A	1.94	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers	Agriculture
											Chlorophyll-a	Crop Production (Irrigated)
											Flow Regime Modification	Dam or Impoundment
											Nitrate/Nitrite (Nitrite + Nitrate as N)	Rangeland Grazing
											Nitrogen, Total	
											Phosphorus, Total	
Sedimentation/Siltation												
Middle Blackfoot	MT76F004_060	WARD CREEK, headwaters to Browns	4A	10.38	MILES	B-1	N	F	F	F	Physical substrate habitat alterations	Agriculture

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010203 Blackfoot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Middle Blackfoot	MT76F004_060	WARD CREEK, headwaters to Browns Lake	4A	10.38	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Silviculture Activities Unspecified Unpaved Road or Trail
Middle Blackfoot	MT76F004_070	WARREN CREEK, headwaters to mouth (Blackfoot River)	4A	14.7	MILES	B-1	N	F	F	X	Fish Passage Barrier Flow Regime Modification Sedimentation/Siltation	Agriculture Channelization Crop Production (Irrigated) Source Unknown
Middle Blackfoot	MT76F004_080	YOURNAME CREEK, headwaters to mouth (Blackfoot River)	4A	9.72	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Fish Passage Barrier Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Rangeland Grazing
Middle Blackfoot	MT76F004_090	ROCK CREEK, headwaters to mouth (North Fork Blackfoot River)	4A	11.61	MILES	B-1	N	F	X	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Rangeland Grazing Silviculture Harvesting
Middle Blackfoot	MT76F004_100	MONTURE CREEK, headwaters to mouth (Blackfoot River)	4A	30.27	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
Middle Blackfoot	MT76F004_110	KLEINSCHMIDT CREEK, Ward Creek to mouth (Rock Creek)	4A	4.67	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Arsenic Sedimentation/Siltation Temperature	Grazing in Riparian or Shoreline Zones Impacts from Hydrostructure Flow Regulation/modification Managed Pasture Grazing Source Unknown
Middle Blackfoot	MT76F005_020	RICHMOND CREEK, headwaters to mouth (Lake Alva)	4A	4.02	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use)
Middle Blackfoot	MT76F005_030	DEER CREEK, headwaters to mouth (Seeley Lake)	4A	10.86	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010203 Blackfoot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Middle Blackfoot	MT76F005_040	WEST FORK CLEARWATER RIVER, headwaters to mouth (Clearwater River)	4A	15.14	MILES	B-1	N	F	F	N	Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	
Middle Blackfoot	MT76F005_060	BLANCHARD CREEK, North Fork to mouth (Clearwater River)	4A	2.36	MILES	B-1	N	F	F	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related) Water Diversions
Lower Blackfoot	MT76F006_010	UNION CREEK, headwaters to mouth (Blackfoot River)	4A	21.57	MILES	B-1	N	X	F	N	Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sediment Temperature	Livestock (Grazing or Feeding Operations) Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Rangeland Grazing Streambank Modifications/destabilization Water Diversions
Lower Blackfoot	MT76F006_020	WEST FORK ASHBY CREEK, headwaters to mouth (Ashby Creek)	4A	3.1	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Phosphorus, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Livestock (Grazing or Feeding Operations) Natural Sources Silviculture Activities
Lower Blackfoot	MT76F006_031	ELK CREEK, headwaters to Stinkwater Creek	4A	8.5	MILES	B-1	N	X	F	N	Nitrogen, Nitrate Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Livestock (Grazing or Feeding Operations) Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Streambank Modifications/destabilization
Lower Blackfoot	MT76F006_032	ELK CREEK, Stinkwater Creek to mouth (Blackfoot River)	4A	5.59	MILES	B-1	N	F	X	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation Temperature	Grazing in Riparian or Shoreline Zones Streambank Modifications/destabilization

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010203 Blackfoot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Lower Blackfoot	MT76F006_040	KENO CREEK, headwaters to mouth (Elk Creek)	4A	2.87	MILES	B-1	N	F	X	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting
Lower Blackfoot	MT76F006_050	EAST FORK ASHBY CREEK, headwaters to mouth (Ashby Creek)	4A	3.9	MILES	B-1	N	X	X	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Silviculture Activities
Lower Blackfoot	MT76F006_060	CAMAS CREEK, 1 mile above mouth to mouth (Union Creek)	4A	1.63	MILES	B-1	N	X	X	N	Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Upstream Source
Lower Blackfoot	MT76F006_070	BELMONT CREEK, headwaters to mouth (Blackfoot River)	4A	10.6	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones
Lower Blackfoot	MT76F006_090	WASHOE CREEK, Headwater to mouth (Union Creek)	4A	6.12	MILES	B-1	N	X	X	N	Chlorophyll-a Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Livestock (Grazing or Feeding Operations) Natural Sources On-site Treatment Systems (Septic Systems and Similar Decentralized Systems) Open Pit Mining Silviculture Harvesting Source Unknown
Nevada Creek	MT76F007_020	NEVADA LAKE	4A	350.9	ACRES	B-1	N	F	F	N	Dissolved Oxygen Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Total Kjehldahl Nitrogen (TKN)	Source Unknown Upstream Source

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010204 Middle Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Clark Fork River	MT76M001_010	CLARK FORK RIVER, Fish Creek to Flathead River	4A	60.36	MILES	B-1	N	F	F	N	Copper Iron Lead Nitrogen, Total Phosphorus, Total	Mill Tailings Mine Tailings Municipal Point Source Discharges
Clark Fork River	MT76M001_020	CLARK FORK RIVER, Rattlesnake Creek to Fish Creek	4A	52.6	MILES	B-1	N	F	F	N	Chlorophyll-a Copper Iron Lead Nitrogen, Total Organic Enrichment Phosphorus, Total	Industrial Point Source Discharge Mill Tailings Municipal Point Source Discharges
Clark Fork River	MT76M001_030	CLARK FORK RIVER, Blackfoot River to Rattlesnake Creek	4A	6.2	MILES	B-1	N	F	N	X	Arsenic Cadmium Copper Eutrophication Iron Lead Zinc	Dam or Impoundment Industrial Point Source Discharge Mill Tailings
Middle Clark Fork Tributaries	MT76M002_010	TAMARACK CREEK, headwaters to mouth (Clark Fork River)	4C	9.47	MILES	B-1	N	X	X	X	Fish Passage Barrier	Dam or Impoundment
Middle Clark Fork Tributaries	MT76M002_020	CEDAR CREEK, headwaters to mouth (Clark Fork River)	4C	17.28	MILES	B-1	N	F	F	I	Flow Regime Modification	Water Diversions
Middle Clark Fork Tributaries	MT76M002_050	TROUT CREEK, headwaters to mouth (Clark Fork River)	4A	14.99	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations Turbidity	Highways, Roads, Bridges, Infrastructure (New Construction) Silviculture Activities Wet Weather Discharges (Non-Point Source)
Middle Clark Fork Tributaries	MT76M002_060	FISH CREEK, West and South Forks to mouth (Clark Fork River)	4C	9.19	MILES	B-1	N	F	X	F	Physical substrate habitat alterations	Highways, Roads, Bridges, Infrastructure (New Construction)
Middle Clark Fork Tributaries	MT76M002_090	PETTY CREEK, headwaters to mouth (Clark Fork River)	4A	12.2	MILES	B-1	N	X	X	F	Alteration in stream-side or littoral vegetative covers	Agriculture

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010204 Middle Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Middle Clark Fork Tributaries	MT76M002_090	PETTY CREEK, headwaters to mouth (Clark Fork River)	4A	12.2	MILES	B-1	N	X	X	F	Flow Regime Modification Sedimentation/Siltation Temperature	Highways, Roads, Bridges, Infrastructure (New Construction)
Middle Clark Fork Tributaries	MT76M002_100	WEST FORK PETTY CREEK, headwaters to mouth (Petty Creek)	4A	7.64	MILES	B-1	N	F	F	N	Chlorophyll-a Phosphorus, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting
Middle Clark Fork Tributaries	MT76M002_122	RATTLESNAKE CREEK, Rattlesnake Wilderness boundary to Rattlesnake Dam	4C	15.32	MILES	A-CLOSE D	N	F	F	X	Flow Regime Modification	Dam Construction (Other than Upstream Flood Control Projects) Water Diversions
Middle Clark Fork Tributaries	MT76M002_130	GRANT CREEK, Rattlesnake Wilderness boundary to mouth (Clark Fork River)	4A	14.54	MILES	B-1	N	F	F	N	Algae Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Sedimentation/Siltation Temperature	Crop Production (Irrigated) Loss of Riparian Habitat Site Clearance (Land Development or Redevelopment) Streambank Modifications/destabilization Water Diversions
Middle Clark Fork Tributaries	MT76M002_140	MILL CREEK, headwaters to mouth (Clark Fork River near Frenchtown)	4C	13.67	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Agriculture Golf Courses Grazing in Riparian or Shoreline Zones
Middle Clark Fork Tributaries	MT76M002_150	SIXMILE CREEK, headwaters to mouth (Clark Fork River)	4C	10.36	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers	Rangeland Grazing Silviculture Activities
Middle Clark Fork Tributaries	MT76M002_160	NEMOTE CREEK, headwaters to mouth (confluence Clark Fork River)	4A	10.38	MILES	B-1	N	F	F	N	Chlorophyll-a Flow Regime Modification Nitrogen, Total Phosphorus, Total Temperature	Dredge Mining Source Unknown Water Diversions
Middle Clark Fork Tributaries	MT76M002_170	DRY CREEK, headwaters to mouth (Clark Fork River)	4A	15.86	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010204 Middle Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Middle Clark Fork Tributaries	MT76M002_170	DRY CREEK, headwaters to mouth (Clark Fork River)	4A	15.86	MILES	B-1	N	F	F	N	Flow Regime Modification Nitrogen, Total	Natural Sources Source Unknown Water Diversions
Middle Clark Fork Tributaries	MT76M002_180	FLAT CREEK, headwaters to mouth (Clark Fork)	4A	8.02	MILES	B-1	N	X	N	X	Antimony Arsenic Cadmium Lead Mercury Physical substrate habitat alterations Sedimentation/Siltation Zinc	Impacts from Abandoned Mine Lands (Inactive) Unspecified Unpaved Road or Trail
Middle Clark Fork Tributaries	MT76M002_200	HALL GULCH, headwaters to mouth (Flat Creek)	4A	2	MILES	B-1	N	X	N	X	Antimony Arsenic Iron Lead Zinc	Impacts from Abandoned Mine Lands (Inactive)
St. Regis	MT76M003_010	ST. REGIS RIVER, headwaters to mouth (Clark Fork River)	4A	40.3	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation Temperature	Channelization Highway/Road/Bridge Runoff (Non-construction Related) Highways, Roads, Bridges, Infrastructure (New Construction) Loss of Riparian Habitat Streambank Modifications/destabilization
St. Regis	MT76M003_020	TWELVE MILE CREEK, headwaters to mouth (St. Regis River)	4A	13.98	MILES	B-1	N	F	F	F	Physical substrate habitat alterations Sedimentation/Siltation Temperature	Channelization Forest Roads (Road Construction and Use) Highway/Road/Bridge Runoff (Non-construction Related) Highways, Roads, Bridges, Infrastructure (New Construction) Loss of Riparian Habitat Silviculture Activities

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010204 Middle Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
St. Regis	MT76M003_030	SILVER CREEK, headwaters to mouth (St. Regis River)	4C	4.96	MILES	A-1	N	F	F	F	Flow Regime Modification	Highways, Roads, Bridges, Infrastructure (New Construction) Impacts from Hydrostructure Flow Regulation/modification
St. Regis	MT76M003_040	BIG CREEK, the East and Middle Forks to mouth (St. Regis River)	4A	2.77	MILES	B-1	N	F	F	F	Sedimentation/Siltation Temperature	Channelization Loss of Riparian Habitat Streambank Modifications/destabilization
St. Regis	MT76M003_070	LITTLE JOE CREEK, North Fork to mouth (St. Regis River)	4A	2.6	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations Sedimentation/Siltation	Highways, Roads, Bridges, Infrastructure (New Construction) Natural Sources Streambank Modifications/destabilization
St. Regis	MT76M003_080	NORTH FORK LITTLE JOE CREEK, headwaters to mouth (Little Joe Creek)	4A	10.82	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Highways, Roads, Bridges, Infrastructure (New Construction) Streambank Modifications/destabilization
Ninemile	MT76M004_010	NINEMILE CREEK, headwaters to mouth (Clark Fork River)	4A	26.85	MILES	B-1	N	F	X	F	Flow Regime Modification Sedimentation/Siltation	Impacts from Abandoned Mine Lands (Inactive) Streambank Modifications/destabilization Water Diversions
Ninemile	MT76M004_020	STONY CREEK, headwaters to mouth (Ninemile Creek)	4A	7.07	MILES	B-1	N	F	F	N	Phosphorus, Total Sedimentation/Siltation	Agriculture Crop Production (Irrigated)
Ninemile	MT76M004_031	McCORMICK CREEK, Little McCormick Creek to mouth (Ninemile Creek)	4C	2.01	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Placer Mining
Ninemile	MT76M004_040	JOSEPHINE CREEK, headwaters to mouth (Ninemile Creek)	4A	5.99	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Forest Roads (Road Construction and Use) Impacts from Hydrostructure Flow Regulation/modification Placer Mining
Ninemile	MT76M004_060	CEDAR CREEK, headwaters to mouth (Ninemile Creek)	4A	4.52	MILES	B-1	N	F	F	I	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Agriculture Forest Roads (Road Construction and Use) Natural Sources Water Diversions
Ninemile	MT76M004_070	KENNEDY CREEK, headwaters to mouth (Ninemile Creek)	4A	5.64	MILES	B-1	N	N	N	X	Alteration in stream-side or littoral vegetative covers Copper	Crop Production (Irrigated) Mine Tailings

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010204 Middle Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Ninemile	MT76M004_070	KENNEDY CREEK, headwaters to mouth (Ninemile Creek)	4A	5.64	MILES	B-1	N	N	N	X	Flow Regime Modification	Placer Mining
											Lead	Subsurface (Hardrock) Mining
											Mercury	Surface Mining
											Sedimentation/Siltation	
											Zinc	
Ninemile	MT76M004_080	LITTLE MCCORMICK CREEK, headwaters to mouth (McCormick Creek)	4A	3.54	MILES	B-1	N	I	F	I	Fish Passage Barrier	Placer Mining
											Flow Regime Modification	
											Physical substrate habitat alterations	
											Sedimentation/Siltation	

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010205 Bitterroot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
AqL	Ag	DW	Rec									
Bitterroot	MT76H001_010	BITTERROOT RIVER, East and West forks to Skalkaho Creek	4C	27.21	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones Rangeland Grazing Streambank Modifications/destabilization
Bitterroot	MT76H001_020	BITTERROOT RIVER, Skalkaho Creek to Eightmile Creek	4A	34.34	MILES	B-1	N	F	F	X	Flow Regime Modification Temperature	Agriculture Crop Production (Irrigated) Wet Weather Discharges (Non-Point Source)
Bitterroot	MT76H001_030	BITTERROOT RIVER, Eightmile Creek to mouth (Clark Fork River)	4A	23.6	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Lead Temperature	Agriculture Rangeland Grazing Source Unknown Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)
Bitterroot Headwaters	MT76H002_010	EAST FORK BITTERROOT RIVER, Anaconda-Pintlar Wilderness boundary to mouth (Bitterroot River)	4A	30.77	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation Temperature	Channelization Grazing in Riparian or Shoreline Zones Highways, Roads, Bridges, Infrastructure (New Construction) Streambank Modifications/destabilization Watershed Runoff following Forest Fire
Bitterroot Headwaters	MT76H002_020	REIMEL CREEK, headwaters to mouth (East Fork Bitterroot River)	4A	7.71	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Agriculture Natural Sources
Bitterroot Headwaters	MT76H002_070	LAIRD CREEK, headwaters to mouth (East Fork Bitterroot River), T2N R20 S35	4A	5.74	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Activities
Bitterroot Headwaters	MT76H002_080	GILBERT CREEK, headwaters to mouth (Laird Creek), T1N R20W S10	4A	2.29	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Activities
Bitterroot Headwaters	MT76H003_010	WEST FORK BITTERROOT RIVER, headwaters to mouth	4A	39.4	MILES	B-1	N	F	X	F	Physical substrate habitat alterations Sedimentation/Siltation Temperature	Highway/Road/Bridge Runoff (Non-construction Related) Highways, Roads, Bridges, Infrastructure (New Construction) Streambank Modifications/destabilization

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010205 Bitterroot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Bitterroot Headwaters	MT76H003_020	NEZ PERCE FORK BITTERROOT RIVER, headwaters to mouth (West Fork Bitterroot River)	4A	15.23	MILES	B-1	N	F	F	F	Temperature	Forest Roads (Road Construction and Use) Loss of Riparian Habitat
Bitterroot Headwaters	MT76H003_040	HUGHES CREEK, headwaters to the mouth (West Fork Bitterroot River)	4A	18.33	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Physical substrate habitat alterations Sedimentation/Siltation Temperature	Channelization Impacts from Abandoned Mine Lands (Inactive) Placer Mining Source Unknown
Bitterroot Headwaters	MT76H003_050	OVERWHICH CREEK, headwaters to mouth (West Fork Bitterroot River)	4A	17.59	MILES	B-1	N	F	F	F	Temperature	Natural Sources Site Clearance (Land Development or Redevelopment)
Bitterroot Headwaters	MT76H003_060	DITCH CREEK, headwaters to mouth (West Fork Bitterroot River)	4A	2.78	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting
Bitterroot Headwaters	MT76H003_070	BUCK CREEK, headwaters to mouth (West Fork Bitterroot), T1N R22W S36	4A	2.51	MILES	B-1	N	F	F	F	Sedimentation/Siltation	
Bitterroot	MT76H004_010	BASS CREEK, Selway-Bitterroot Wilderness boundary to mouth (unnamed channel of Bitterroot River), T9N R20W S3	4A	5.07	MILES	B-1	N	F	F	N	Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Agriculture Crop Production (Irrigated) Dam or Impoundment Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Natural Sources Water Diversions
Bitterroot	MT76H004_020	KOOTENAI CREEK, Selway-Bitterroot Wilderness boundary to mouth (Bitterroot River)	4C	5.63	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification	Agriculture
Bitterroot	MT76H004_031	BEAR CREEK, Selway-Bitterroot Wilderness boundary to mouth (Fred Burr Creek), T7N R20W S7	4C	8.3	MILES	B-1	N	F	X	X	Flow Regime Modification	Agriculture
Bitterroot	MT76H004_032	NORTH CHANNEL BEAR CREEK, headwater to the mouth (Fred Burr Creek), T8N R20W S32	4C	4.38	MILES	B-1	N	F	X	X	Flow Regime Modification	Agriculture
Bitterroot	MT76H004_040	MILL CREEK, Selway-Bitterroot Wilderness boundary to the mouth (Fred Burr Creek), T7N R20W S19	4A	8.72	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers Flow Regime Modification	Grazing in Riparian or Shoreline Zones Highways, Roads, Bridges, Infrastructure (New Construction)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010205 Bitterroot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use AqL	Ag	DW	Rec	Cause Name *	Source Name *
Bitterroot	MT76H004_040	MILL CREEK, Selway-Bitterroot Wilderness boundary to the mouth (Fred Burr Creek), T7N R20W S19	4A	8.72	MILES	B-1	N	X	X	X	Temperature	Impacts from Hydrostructure Flow Regulation/modification Loss of Riparian Habitat Site Clearance (Land Development or Redevelopment)
Bitterroot	MT76H004_050	BLODGETT CREEK, Selway-Bitterroot Wilderness boundary to mouth (Bitterroot River)	4C	13.63	MILES	B-1	N	F	X	X	Flow Regime Modification	Agriculture
Bitterroot	MT76H004_070	LOST HORSE CREEK, headwaters to mouth (Bitterroot River)	4C	20.61	MILES	B-1	N	F	X	X	Flow Regime Modification	Agriculture
Bitterroot	MT76H004_080	TIN CUP CREEK, Selway-Bitterroot Wilderness boundary to mouth (Bitterroot River)	4C	7.95	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Crop Production (Irrigated) Loss of Riparian Habitat
Bitterroot	MT76H004_090	SLEEPING CHILD CREEK, headwaters to mouth (Bitterroot River)	4A	24.93	MILES	B-1	N	F	X	F	Sedimentation/Siltation Temperature	Agriculture Highway/Road/Bridge Runoff (Non-construction Related) Silviculture Activities
Bitterroot	MT76H004_100	SKALKAHO CREEK, headwaters to mouth (Bitterroot River)	4C	27.8	MILES	B-1	N	F	F	F	Flow Regime Modification	Crop Production (Irrigated)
Bitterroot	MT76H004_110	WILLOW CREEK, headwaters to mouth (Bitterroot River)	4A	17.16	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation Temperature	Crop Production (Irrigated) Loss of Riparian Habitat Silviculture Activities Water Diversions
Bitterroot	MT76H004_120	AMBROSE CREEK, headwaters to mouth (Threemile Creek)	4A	11.7	MILES	B-1	N	F	X	N	Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat
Bitterroot	MT76H004_130	MILLER CREEK, headwaters to mouth (Bitterroot River)	4A	18.34	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation Temperature	Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Silviculture Activities
Bitterroot	MT76H004_140	THREEMILE CREEK, headwaters to mouth (Bitterroot River)	4A	17.96	MILES	B-1	N	F	X	N	Flow Regime Modification	Agriculture

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010205 Bitterroot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Bitterroot	MT76H004_140	THREEMILE CREEK, headwaters to mouth (Bitterroot River)	4A	17.96	MILES	B-1	N	F	X	N	Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Crop Production (Irrigated) Rangeland Grazing
Bitterroot	MT76H004_150	McCLAIN CREEK, headwaters to mouth (Sin-tin-tin-em-ska Creek), T11N R20W S23	4A	7.12	MILES	B-1	N	F	X	X	Sedimentation/Siltation	Forest Roads (Road Construction and Use)
Bitterroot	MT76H004_160	NORTH FORK RYE CREEK, headwaters to mouth (Rye Creek-Bitterroot River, South of Darby)	4A	7.08	MILES	B-1	N	F	X	N	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Streambank Modifications/destabilization
Bitterroot	MT76H004_170	LICK CREEK, headwaters to mouth (Bitterroot River)	4A	6.39	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Aluminum Chlorophyll-a Phosphorus, Total Sedimentation/Siltation	Agriculture Grazing in Riparian or Shoreline Zones Livestock (Grazing or Feeding Operations) Silviculture Activities Source Unknown
Bitterroot	MT76H004_180	MUDDY SPRING CREEK, headwaters to mouth (Gold Creek) T7N R19W S2	4A	2.04	MILES	B-1	N	F	F	N	Nitrate/Nitrite (Nitrite + Nitrate as N) Sedimentation/Siltation	Rangeland Grazing Source Unknown
Bitterroot	MT76H004_190	RYE CREEK, North Fork to mouth (Bitterroot River)	4A	5.98	MILES	B-1	N	F	X	N	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Animal Feeding Operations (NPS) Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Silviculture Activities
Bitterroot	MT76H004_200	NORTH BURNT FORK CREEK, confluence with South Burnt Fork Creek to Mouth (Bitterroot River)	4A	10.94	MILES	B-1	N	F	F	N	Nitrogen, Total Phosphorus, Total Sediment	Crop Production (Irrigated) Grazing in Riparian or Shoreline Zones
Bitterroot	MT76H004_210	SWEATHOUSE CREEK, Selway-Bitterroot Wilderness boundary to mouth (Bitterroot River)	4A	7.7	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Phosphorus, Total	Agriculture Loss of Riparian Habitat Site Clearance (Land Development or Redevelopment)

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010205 Bitterroot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Bitterroot	MT76H004_210	SWEATHOUSE CREEK, Selway-Bitterroot Wilderness boundary to mouth (Bitterroot River)	4A	7.7	MILES	B-1	N	X	X	N	Sedimentation/Siltation	
Bitterroot	MT76H005_011	LOLO CREEK, Mormon Creek to mouth (Bitterroot River)	4A	3.12	MILES	B-1	N	F	X	X	Flow Regime Modification	Agriculture
											Physical substrate habitat alterations	Habitat Modification - other than Hydromodification
											Sedimentation/Siltation	Site Clearance (Land Development or Redevelopment)
Bitterroot	MT76H005_012	LOLO CREEK, Sheldon Creek to Mormon Creek	4A	14.14	MILES	B-1	N	F	X	F	Physical substrate habitat alterations	Agriculture
											Sedimentation/Siltation	Silviculture Activities
												Streambank Modifications/destabilization
Bitterroot	MT76H005_013	LOLO CREEK, headwaters to Sheldon Creek	4A	14.24	MILES	B-1	N	F	X	F	Physical substrate habitat alterations	Habitat Modification - other than Hydromodification
											Sedimentation/Siltation	Highways, Roads, Bridges, Infrastructure (New Construction)
												Silviculture Activities
Bitterroot	MT76H005_020	SOUTH FORK LOLO CREEK, Selway-Bitterroot Wilderness boundary to mouth (Lolo Creek)	4C	6.87	MILES	B-1	N	F	F	X	Flow Regime Modification	Forest Roads (Road Construction and Use)
											Physical substrate habitat alterations	Impacts from Hydrostructure Flow Regulation/modification
												Silviculture Activities
Upper Lolo	MT76H005_030	GRANITE CREEK, headwaters to mouth (Lolo Creek)	4A	9.39	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers	Forest Roads (Road Construction and Use)
											Fish Passage Barrier	Silviculture Activities
											Sedimentation/Siltation	
Upper Lolo	MT76H005_040	EAST FORK LOLO CREEK, headwaters to mouth (Confluence with Lolo Creek)	4A	9.12	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers	Forest Roads (Road Construction and Use)
											Fish Passage Barrier	Highway/Road/Bridge Runoff (Non-construction Related)
											Sedimentation/Siltation	Silviculture Activities
Upper Lolo	MT76H005_050	WEST FORK LOLO CREEK, headwaters to mouth (Lolo Creek)	4A	7.37	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers	Forest Roads (Road Construction and Use)
											Sedimentation/Siltation	Highway/Road/Bridge Runoff (Non-construction Related)
												Streambank Modifications/destabilization
Upper Lolo	MT76H005_060	LOST PARK CREEK, headwaters to mouth (Confluence with East Fork Lolo Creek)	4A	5.08	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers	Forest Roads (Road Construction and Use)
											Fish Passage Barrier	Silviculture Harvesting

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010205 Bitterroot

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Upper Lolo	MT76H005_060	LOST PARK CREEK, headwaters to mouth (Confluence with East Fork Lolo Creek)	4A	5.08	MILES	B-1	N	X	X	X	Sedimentation/Siltation	
Upper Lolo	MT76H005_070	LEE CREEK, headwaters to mouth (West Fork Lolo Creek)	4A	3.8	MILES	B-1	N	F	X	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Activities Streambank Modifications/destabilization

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010206 North Fork Flathead

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Big Creek (Columbia)	MT76Q002_050	BIG CREEK, headwaters to mouth (North Fork of the Flathead River)	4C	16.68	MILES	B-1	N	F	X	F	Alteration in stream-side or littoral vegetative covers	Forest Roads (Road Construction and Use) Streambank Modifications/destabilization
Flathead Headwaters	MT76Q002_070	COAL CREEK, headwaters to South Fork	4C	10.4	MILES	B-1	N	X	X	X	Alteration in stream-side or littoral vegetative covers	
Flathead Headwaters	MT76Q002_080	COAL CREEK, South Fork to mouth (North Fork Flathead)	4A	9.57	MILES	B-1	N	F	X	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Harvesting

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010208 Flathead Lake

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Flathead - Stillwater	MT76O002_010	ASHLEY CREEK, Ashley Lake to Smith Lake	4A	15.64	MILES	B-1	N	F	X	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Dissolved Oxygen Nitrogen, Total Sedimentation/Siltation Temperature	Channelization Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Source Unknown
Flathead - Stillwater	MT76O002_020	ASHLEY CREEK, Smith Lake to Kalispell Airport Road	4A	14.17	MILES	B-2	N	F	X	N	Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Agriculture Crop Production (Crop Land or Dry Land) Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat
Flathead - Stillwater	MT76O002_030	ASHLEY CREEK, Kalispell airport road to mouth (Flathead River)	4A	13.17	MILES	C-2	N	F	-	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Dissolved Oxygen Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Channelization Crop Production (Irrigated) Discharges from Municipal Separate Storm Sewer Systems (MS4) Loss of Riparian Habitat Municipal Point Source Discharges Upstream Source
Flathead - Stillwater	MT76O002_040	SPRING CREEK, headwaters to mouth (Ashley Creek)	5	4.8	MILES	B-1	N	F	N	N	Alteration in stream-side or littoral vegetative covers Arsenic Dissolved Oxygen Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Physical substrate habitat alterations	Agriculture Baseflow Depletion from Groundwater Withdrawals Channelization Loss of Riparian Habitat Source Unknown Water Diversions

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010208 Flathead Lake

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Flathead Lake	MT76O003_010	FLATHEAD LAKE	5	57305	ACRES	A-1	N	F	F	F	Mercury	Atmospheric Deposition - Nitrogen
											Nitrogen, Total	Dam or Impoundment
											Phosphorus, Total	Impacts from Hydrostructure Flow Regulation/modification
											Polychlorinated Biphenyls (PCBs)	Municipal Point Source Discharges
												Silviculture Harvesting
Flathead Lake	MT76O004_020	LAKE MARY RONAN	4C	1517.2	ACRES	A-1	T	F	X	F	Chlorophyll-a	Source Unknown
												Unspecified Urban Stormwater
												Agriculture
												Grazing in Riparian or Shoreline Zones
												Silviculture Activities

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010209 South Fork Flathead

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Flathead Headwaters	MT76J001_010	SOUTH FORK FLATHEAD RIVER, Hungry Horse Dam to mouth	4C	5.31	MILES	B-1	N	F	X	X	Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010210 Stillwater

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Flathead - Stillwater	MT76P001_010	STILLWATER RIVER, Logan Creek to mouth	4A	45.61	MILES	B-2	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Agriculture Loss of Riparian Habitat Site Clearance (Land Development or Redevelopment) Upstream Source
Flathead - Stillwater	MT76P001_030	LOGAN CREEK, headwaters to Tally Lake	4A	21.16	MILES	B-1	N	F	X	F	Flow Regime Modification Physical substrate habitat alterations Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Activities Streambank Modifications/destabilization
Flathead - Stillwater	MT76P001_040	SINCLAIR CREEK, headwaters to mouth (Sheppard Creek)	4C	2.32	MILES	B-1	N	X	X	X	Flow Regime Modification	Agriculture Streambank Modifications/destabilization
Flathead - Stillwater	MT76P001_050	SHEPPARD CREEK, headwaters to mouth (Griffin Creek)	4A	15.92	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Crop Production (Crop Land or Dry Land) Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Silviculture Harvesting
Flathead - Stillwater	MT76P003_010	WHITEFISH RIVER, Whitefish Lake to mouth (Stillwater River)	5	24.8	MILES	B-2	N	F	F	F	Oil and Grease Polychlorinated Biphenyls (PCBs) Temperature	Accidental release/Spill Industrial Point Source Discharge Silviculture Activities Site Clearance (Land Development or Redevelopment) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)
Flathead - Stillwater	MT76P003_070	HASKILL CREEK Haskill Basin Pond to mouth (Whitefish River)	4A	8.43	MILES	A-1	N	X	X	X	Sedimentation/Siltation	Agriculture Residential Districts
Flathead - Stillwater	MT76P004_010	WHITEFISH LAKE	5	3317.4	ACRES	A-1	T	F	X	F	Mercury Polychlorinated Biphenyls (PCBs)	Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010211 Swan

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Swan	MT76K002_010	SWAN LAKE	4A	3273.6	ACRES	A-1	T	F	F	F	Nitrogen, Total	Forest Roads (Road Construction and Use)
											Phosphorus, Total	Highways, Roads, Bridges, Infrastructure (New Construction)
											Sediment Oxygen Demand	
											Sedimentation/Siltation	
Swan	MT76K003_031	GOAT CREEK, headwaters to Squeezer Creek	4A	9.71	MILES	B-1	N	F	X	F	Total Suspended Solids (TSS)	Highways, Roads, Bridges, Infrastructure (New Construction) Silviculture Harvesting

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010212 Lower Flathead

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Flathead	MT76L001_010	FLATHEAD RIVER, Flathead Reservation boundary to mouth (Clark Fork River)	5	4.24	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Crop Production (Irrigated) Dam or Impoundment Impacts from Hydrostructure Flow Regulation/modification Natural Sources
Lower Flathead	MT76L002_060	LITTLE BITTERROOT RIVER, Hubbart Reservoir to Flathead Reservation Boundary	4A	5.2	MILES	B-2	N	X	X	N	Chlorophyll-a Flow Regime Modification Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Dam or Impoundment Upstream Source
Lower Flathead	MT76L002_070	SULLIVAN CREEK, headwaters to Flathead Indian Reservation	4A	3.9	MILES	B-1	N	X	N	N	Alteration in stream-side or littoral vegetative covers Aluminum Cadmium Copper Phosphorus, Total Sedimentation/Siltation Zinc pH	Grazing in Riparian or Shoreline Zones Impacts from Abandoned Mine Lands (Inactive) Mine Tailings

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010213 Lower Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Clark Fork River	MT76N001_010	CLARK FORK RIVER, Flathead River to Thompson Falls Reservoir	5	36.3	MILES	B-1	N	F	F	F	Dissolved Gas Supersaturation Fish Passage Barrier	Dam or Impoundment Hydrostructure Impacts on Fish Passage
Clark Fork River	MT76N001_020	CLARK FORK RIVER, Noxon Dam to Noxon Bridge	5	2.85	MILES	B-1	N	F	F	F	Dissolved Gas Supersaturation Fish Passage Barrier Flow Regime Modification Temperature	Dam or Impoundment Hydrostructure Impacts on Fish Passage
Middle Clark Fork Tributaries	MT76N003_010	LYNCH CREEK, headwaters to mouth (Clark Fork River)	4A	13.33	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Nitrogen, Total Phosphorus, Total Sedimentation/Siltation Temperature	Channelization Crop Production (Irrigated) Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones
Prospect Creek	MT76N003_020	PROSPECT CREEK, headwaters to mouth (Clark Fork River)	4A	19.07	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Antimony Lead Sedimentation/Siltation Zinc	Grazing in Riparian or Shoreline Zones Loss of Riparian Habitat Mine Tailings Silviculture Activities
Prospect Creek	MT76N003_021	ANTIMONY CREEK, headwaters to mouth (Prospect Creek)	4A	1.25	MILES	B-1	N	X	N	X	Antimony Arsenic Lead	Mill Tailings Natural Sources
Prospect Creek	MT76N003_022	COX GULCH, headwaters to mouth (Prospect Creek)	4A	3.61	MILES	B-1	N	X	N	X	Antimony Lead	Mine Tailings
Lower Clark Fork Tributaries	MT76N003_030	BEAVER CREEK, headwaters to mouth (Confluence with Clark Fork River)	4C	25.41	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Natural Sources
Lower Clark Fork Tributaries	MT76N003_040	BULL RIVER, the North Fork to mouth (Cabinet Gorge Reservoir)	4A	25.18	MILES	B-1	N	F	X	F	Physical substrate habitat alterations	Silviculture Activities

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010213 Lower Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
						AqL	Ag	DW	Rec			
Lower Clark Fork Tributaries	MT76N003_040	BULL RIVER, the North Fork to mouth (Cabinet Gorge Reservoir)	4A	25.18	MILES	B-1	N	F	X	F	Sedimentation/Siltation	Streambank Modifications/destabilization
Prospect Creek	MT76N003_050	CLEAR CREEK, headwaters to mouth (Prospect Creek)	4A	12.09	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation	Forest Roads (Road Construction and Use) Streambank Modifications/destabilization
Elk Creek	MT76N003_060	ELK CREEK, headwaters to mouth (Cabinet Gorge Reservoir)	4A	8.04	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones Habitat Modification - other than Hydromodification Hardrock Mining Discharges (Permitted)
Prospect Creek	MT76N003_070	DRY CREEK, headwaters (confluence of East and West Forks) to mouth (Prospect Creek)	4A	4.23	MILES	B-1	N	F	F	N	Alteration in stream-side or littoral vegetative covers Chlorophyll-a Sedimentation/Siltation	Highways, Roads, Bridges, Infrastructure (New Construction) Rangeland Grazing
Lower Clark Fork Tributaries	MT76N003_080	GRAVES CREEK, headwaters to mouth (Clark Fork River)	4C	10.52	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones Highway/Road/Bridge Runoff (Non-construction Related)
Lower Clark Fork Tributaries	MT76N003_090	MARTEN CREEK, headwaters to mouth (Noxon Reservoir)	4A	6.78	MILES	B-1	N	F	X	X	Physical substrate habitat alterations Sedimentation/Siltation	Forest Roads (Road Construction and Use) Silviculture Activities Streambank Modifications/destabilization
Lower Clark Fork Tributaries	MT76N003_100	PILGRIM CREEK, headwaters to mouth (Clark Fork River)	4C	7.15	MILES	A-1	N	F	X	F	Physical substrate habitat alterations	Channelization Grazing in Riparian or Shoreline Zones Streambank Modifications/destabilization
Lower Clark Fork Tributaries	MT76N003_120	WHITE PINE CREEK, headwaters to mouth (Beaver Creek)	4A	12.37	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers Sedimentation/Siltation Temperature	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Natural Sources Silviculture Harvesting Streambank Modifications/destabilization Watershed Runoff following Forest Fire
Lower Clark Fork Tributaries	MT76N003_130	VERMILION RIVER, headwaters to mouth (Noxon Reservoir)	4C	22.84	MILES	B-1	N	F	X	X	Alteration in stream-side or littoral vegetative covers	Placer Mining Silviculture Activities

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010213 Lower Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Lower Clark Fork Tributaries	MT76N003_130	VERMILION RIVER, headwaters to mouth (Noxon Reservoir)	4C	22.84	MILES	B-1	N	F	X	X		Streambank Modifications/destabilization
Lower Clark Fork Tributaries	MT76N003_140	SWAMP CREEK, Cabinet Mountains Wilderness boundary to mouth (Noxon Reservoir)	4A	9.75	MILES	A-1	N	X	X	X	Sedimentation/Siltation	Loss of Riparian Habitat
Middle Clark Fork Tributaries	MT76N003_160	SWAMP CREEK, West Fork Swamp Creek to mouth (Clark Fork River), T20N R27W S3	4A	4.76	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Nitrate/Nitrite (Nitrite + Nitrate as N) Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Channelization Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Silviculture Harvesting
Middle Clark Fork Tributaries	MT76N003_170	HENRY CREEK, headwaters to mouth (Clark Fork River), T19N R26W S1	4A	7.1	MILES	B-1	N	X	X	F	Alteration in stream-side or littoral vegetative covers Flow Regime Modification Sedimentation/Siltation	Channelization Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Source Unknown Water Diversions
Lower Clark Fork Tributaries	MT76N003_180	DRY CREEK, headwaters to mouth (Bull River), T28N R33W S32	4A	4.1	MILES	B-1	N	F	F	F	Sedimentation/Siltation	Forest Roads (Road Construction and Use)
Lower Clark Fork Tributaries	MT76N003_190	ROCK CREEK, headwaters to mouth below the Noxon Dam	4C	11.1	MILES	B-1	N	F	F	F	Other anthropogenic substrate alterations	Silviculture Activities
Thompson	MT76N005_030	McGREGOR CREEK, McGregor Lake to mouth (Thompson River)	4A	6.82	MILES	B-1	N	X	X	F	Flow Regime Modification Sedimentation/Siltation Temperature	Channelization Crop Production (Irrigated) Highway/Road/Bridge Runoff (Non-construction Related) Hydrostructure Impacts on Fish Passage Impacts from Hydrostructure Flow Regulation/modification
Thompson	MT76N005_040	LITTLE THOMPSON RIVER, headwaters to mouth (Thompson River), T22N R25W S8	4A	19.92	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Nitrogen, Total Phosphorus, Total Sedimentation/Siltation	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Silviculture Harvesting
Thompson	MT76N005_060	LAZIER CREEK, headwaters to mouth (Thompson River)	4A	7.79	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.



Appendix A: Impaired Waters

HUC: 17010213 Lower Clark Fork

Watershed: Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	Beneficial Use				Cause Name *	Source Name *
							AqL	Ag	DW	Rec		
Thompson	MT76N005_060	LAZIER CREEK, headwaters to mouth (Thompson River)	4A	7.79	MILES	B-1	N	X	X	N	Nitrate/Nitrite (Nitrite + Nitrate as N)	Livestock (Grazing or Feeding Operations)
											Nitrogen, Total	Silviculture Activities
											Phosphorus, Total	
											Sedimentation/Siltation	
Thompson	MT76N005_070	MCGINNIS CREEK, headwaters to mouth (Little Thompson River)	4A	5.12	MILES	B-1	N	X	X	F	Fish Passage Barrier	Forest Roads (Road Construction and Use)
											Sedimentation/Siltation	Grazing in Riparian or Shoreline Zones
												Habitat Modification - other than Hydromodification
												Silviculture Harvesting
												Source Unknown

AqL=Aquatic Life; Ag=Agriculture; DW=Drinking Water; Rec=Primary Contact Recreation

F=Fully Supporting; T=Threatened; N=Not Fully Supporting; I=Insufficient Information; X=Not Assessed; - = Beneficial Use Not Assigned

* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.